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ABSTRACT

Most educators agree that the story of the evolution of money and banking in the United States includes many historical events that have been crucial to the nation's development. This collection of materials consists of a video, a related brochure, and a series of lesson plans about the Federal Reserve. The video provides a 14-minute introduction to the Federal Reserve and its role in the money and banking system of the United States, and the brochure summarizes the Federal Reserve today, its history and its operation. The accompanying teacher's guide includes six lesson plans: (1) "'The Fed Today': A Video on the Federal Reserve"; (2) "History of Money and Banking in the U.S."; (3) "Is the Fed Public or Private?"; (4) "The Fed's Role in Making and Setting Monetary Policy"; (5) "The Fed Is Protecting Your Money"; (6) "The Fed: Helping Keep Banks Safe and Sound." The lessons give suggestions for teachers to incorporate Web-based resources from Federal reserve Web sites. The video, lessons, and Web sites can be used with economics, government, United States history, and personal finance courses. Each lesson includes an overview, student objectives, time and materials needed, advance preparation, step-by-step procedures, and suggested extension activities. Masters for visual presentation and student handouts are included. A glossary, a map of the Reserve Banks, and list of Web sites with additional resources for teaching about the Fed are appended. (BT)

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ED 458 167

THE FED TODAY

History, Structure, Monetary Policy, Banking Supervision, Financial Services, and More!

Lesson plans and activities for economics, government, and history teachers

Activities to be used with *The Fed Today* video

SO 033 061

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NOTE TO EDUCATORS

The Fed Today video provides a 14-minute introduction to the Federal Reserve and its role in the money and banking system of the United States. The accompanying teacher's guide includes six detailed lesson plans to expand student learning about the Fed, money, and banking.

Lesson One begins with an active-viewing exercise of *The Fed Today* video. All lessons provide teaching strategies that focus on ways to motivate students, reinforce concepts, and review content. Teachers are also provided with suggestions for incorporating web-based resources from Federal Reserve websites. The video, lessons, and websites may be usefully incorporated in economics, government, U.S. history, and personal finance courses.

The lessons are organized around themes from *The Fed Today* video-history, structure, monetary policy, supervision, and financial services. Lesson Four is for teachers interested in using a real-world approach to explain monetary policy. This special two-part lesson begins with an in-depth look at the rapid inflation of the mid-1970s and early 1980s. It concludes with an analysis of the decision-making process that takes place in key FOMC meetings.

Each lesson includes an overview, student objectives, time and materials needed, advance preparation, step-by-step procedures, and suggested extension activities. Masters for visual presentation and student handouts are also included.

A glossary, a map of the Reserve Banks, and list of websites with additional resources for teaching about the Federal Reserve are located in the appendices at the end of the guide. In addition, each lesson offers a discussion point—a myth about the Federal Reserve and its counterpart in reality. The myths are taken from an independent congressional report entitled *Money and the Federal Reserve System: Myth and Reality*, and can be used for discussion throughout the lessons.*

The Federal Reserve System is committed to providing high quality comprehensive materials to educators in the United States. These lessons can also be found in electronic form on our economic education website at http://www.FederalReserveEducation.org/, along with other classroom activities.

Most educators agree that the story of the evolution of money and banking in the U.S. includes many important historical events that have been crucial to our nation's development. The creation of the Federal Reserve System was one of the most significant economic events in the history of the United States. It is certain that the Fed will continue to impact money and banking into the future.

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* For more information, see *Money and the Federal Reserve System: Myth and Reality* by G. Thomas Woodward. Congressional Research Service Report 96-672 E, July 31, 1996.

THE FED TODAY

History, Structure, Monetary Policy, Banking Supervision, Financial Services, and More!

LESSON ONE:

THE FED TODAY: A VIDEO ON THE FEDERAL RESERVE

LESSON OVERVIEW:

The Fed Today video begins with the statement "Money—it certainly makes the world go around." Narrated by Charles Osgood, the video is a 14-minute fast moving and informative introduction to the Federal Reserve System. It provides graphic footage that clarifies the Fed's complex structure and role in the U.S. economy. This lesson helps students make the connection between the Fed's mission and a healthy U.S. economy.

To encourage active viewing, students are divided into six groups and are given specific tasks to report on, after watching the video. The six groups correspond to the six categories that are used to organize the video—history, structure, monetary policy, financial services, banking supervision and the Fed today. The video takes students from the early history of banking in the 1800s, through the formation of the Federal Reserve in 1913, up to the present day.

STUDENT OBJECTIVES:

Students will:

- List significant historical events that led to the establishment of the Federal Reserve System.
- Identify key structural elements of the Federal Reserve.
- Explain important roles that the Fed plays in the economy (monetary policy, bank supervision, and the payments system).

TIME NEEDED:

One-two 50-minute class periods

MATERIALS:

- *The Fed Today* video and companion brochure (order at no charge to teachers at: http://www.kc.frb.org/teachers/)
- Teacher Background: Questions and Answers for *The Fed Today* Video
- Access to the FED101 website: http://www.kc.frb.org/fed101/ to review additional classroom resources. (Optional)

TEACHER PREPARATION:

1. View the video and note the subject-area headings provided (History, Structure, Monetary Policy, Financial Services, Banking Supervision, and The Fed Today).
2. Review the content in the companion brochure to *The Fed Today* video.
3. Review questions and answers in the Teacher Background: *Questions and Answers for* The Fed Today *Video*
4. Review the FED101 web site located at http://www.kc.frb.org/fed101/.

ACTIVITY:

Understanding the Fed's Role in the U.S. Economy

PROCEDURES:

1. Begin the lesson by showing students a one-dollar bill and ask if they know how this makes the world go around. Ask students to look at their own bills and find the words "Federal Reserve Note." Find out how much the students already know about the Federal Reserve and its role in the U.S. economy.
2. Announce that the class will be viewing a video on the Federal Reserve that will give them an overview of the Fed from its founding to the present day.
3. Divide the class into six groups. Give each group a topic with a title that corresponds to a category in the video: ***history, structure, monetary policy, financial services, banking supervision,*** and ***the Fed today***. Have the groups make a name tent or small sign with their group topic.
4. Explain that the task for each group, after watching the video, is to make a report that mentions at least five things group members learned about their topic (topics include history, banking supervision, etc.). Specify that at the end of the video, all group members will have time to prepare their class report. They will need to share information so that they can include five items. One person in each group will be the spokesperson.
5. Show *The Fed Today* video (14 minutes). Allow students time to prepare their reports. Work with each group to encourage every student to share his or her notes and recollections for the presentation.
6. Acknowledge and summarize the reports from each of the six groups. Use the Teacher Background: *Question and Answers for* The Fed Today *Video* (at the end of Lesson One) to further clarify or expand on information presented by students representing each of the six groups. These questions can also be used to evaluate the lesson or as part of a weekly quiz.
7. **Teacher Summary:** Explain to students that the Federal Reserve plays an important role in the U.S. economy. Ask for student participation to summarize the following main points:

   - **History**—During the 1800s, people routinely lost faith in the banking and financial system. Paper money could be printed by states, cities, and private businesses. The Federal Reserve Act was passed in 1913 to create a safer and more stable monetary and banking system.
   - **Structure**—The Federal Reserve is a "decentralized central bank" with both private and public elements operating independently within the government. The Board of Governors of the Federal Reserve is a government agency. The 12 Federal Reserve Banks are not government agencies; they represent the private component of the Fed.
   - **Monetary Policy**—The primary focus of monetary policy is price stability. The body that is charged with setting monetary policy is the Federal Open Market Committee, which regulates the amount of money and credit in the economy.
   - **Financial Services**—The Federal Reserve is often called "the bankers' bank" because it provides financial institutions with high quality currency and coin, processes checks and electronic payments, and encourages new payment technologies.
   - **Bank Supervision**—To enhance public confidence in banks, the Fed promotes the safety and soundness of the banking system. Bank examiners analyze financial records, risk, and compliance and can require banks to take corrective action if necessary.
   - **The Fed Today**—As banking practices and laws have evolved, the Fed has adapted to these changes by helping to write additional banking laws and incorporate new technologies. Emerging democracies have used the Fed as a model when modifying their central banks.

EXTENDING THE LESSON:

Have students visit the FED101 website at: http://www.kc.frb.org/fed101/policy/ to learn more about the role of the Fed in the U.S. economy and take an on-line quiz.

DISCUSSION POINT:

Myth:

The Federal Reserve Act was passed illegally under a cloak of secrecy and was started by an elite group of private bankers.

REALITY:

The Federal Reserve System was created by the Federal Reserve Act and signed into law by President Woodrow Wilson on December 23, 1913. Although the Act was passed in the final days of the legislative session, it had been debated for some time in earlier versions. Because the regional Federal Reserve Banks are privately owned, and most of their directors are chosen by their stockholders, it is common to hear that control of the Fed is in the hands of elite bankers. However, individuals do not own stock in Federal Reserve Banks. The stock is held only by banks that are members of the system. Ownership and membership are synonymous.

Teacher Background

QUESTIONS AND ANSWERS FOR *THE FED TODAY* VIDEO

HISTORY:

People Lacked Confidence in Money and Banking during the 1800s

QUESTION:
Who was allowed to issue paper money during the 1800s?

SUGGESTED ANSWER:
Over 30,000 different notes were issued by states, banks, and private companies during much of the 1800s.

QUESTION:
Why did some people lose faith in the banking system before the Federal Reserve System was in place?

SUGGESTED ANSWER:
Sometimes banks did not have enough money to pay depositors, and they had to temporarily close their doors or permanently go out of business.

QUESTION:
When was the Federal Reserve Act passed,and which U.S. President signed it into law?

SUGGESTED ANSWER
In 1913 the Federal Reserve Act was signed into law by President Woodrow Wilson.

STRUCTURE:

The Federal Reserve is a System Comprised of Regional and National Components

QUESTION:
Why is the Fed sometimes called a decentralized central bank that's both public and private?

SUGGESTED ANSWER:
The Federal Reserve consists of two main entities—the Board of Governors and the 12 Federal Reserve Banks.The Board of Governors is a public agency.The 12 Federal Reserve Banks and their boards of directors represent the private component of the Fed.

QUESTION:
What are the "checks and balances"in place when a Fed governor is appointed to the Board of Governors?

SUGGESTED ANSWER:
Each of the seven members of the Board of Governors is nominated by the President, but must also be confirmed by the Senate.

QUESTION:
What are the three primary roles of the 12 Federal Reserve Banks?

SUGGESTED ANSWER:
The three primary roles of Federal Reserve Banks are providing economic analysis, delivering financial services to banks, and supervising banks.

MONETARY POLICY:

The Fed's Primary Goal is Price Stability

QUESTION:
What is the primary focus of monetary policy?

SUGGESTED ANSWER:
Price stability is the primary focus of monetary policy.

QUESTION:
What decision does the Federal Open Market Committee make when it meets?

SUGGESTED ANSWER:
The Federal Open Market Committee regulates the amount of money and credit that is available for the economy.

QUESTION:
According to *The Fed Today* video, what are the economic conditions that may lead to inflation?

SUGGESTED ANSWER:
Inflation may result when the supply of money grows faster than the production of goods and services.

BANK SUPERVISION:

The Fed Promotes a Safe and Sound Banking System

QUESTION:
Who establishes the laws that govern the supervision and regulation of banking institutions that operate in the U.S.?

SUGGESTED ANSWER:
Congress establishes the laws,and the Federal Reserve, along with other Federal and state regulators, makes sure these rules are followed.

QUESTION:
Why does the Fed attempt to make banks both safe and sound?

SUGGESTED ANSWER:
Stable and healthy banks enhance public confidence in the financial system.

QUESTION:
What do Federal Reserve bank examiners analyze when they examine a bank?

SUGGESTED ANSWER:
Federal Reserve Bank examiners review financial records,look for potential risks in bank investments, and ensure that banks follow applicable banking regulations.

FINANCIAL SERVICES

The Fed Helps to Maintain a Reliable Payments System

QUESTION:
Why is it so important that the Fed play a vital role in the U.S. payments system?

SUGGESTED ANSWER:
The transfer of funds from one bank to another is a key component of keeping banks safe and reliable.

QUESTION:
Why is the Fed often called "the bankers' bank?"

SUGGESTED ANSWER:
Because the Fed provides banks with financial services, such as check processing, electronic payments, and new currency and coin.

QUESTION:
Why is the Fed considered to be the government's bank?

SUGGESTED ANSWER:
The Federal Reserve maintains the U.S. Treasury's account, facilitates the collection of federal taxes, and issues and redeems Treasury securities.

THE FED TODAY:

The Fed Adapts to a Changing Financial System

QUESTION:
What is the mission of the Federal Reserve, and what is its short name?

SUGGESTED ANSWER:
The mission of the Federal Reserve, often referred to as the Fed, is to maintain public confidence in our nation's monetary and banking system.

QUESTION:
How have Federal Reserve Banks adapted to be able to process more than 20 billion checks per year?

SUGGESTED ANSWER:
New processing and computer technologies have enabled the Fed to adapt to a constantly changing banking industry.

QUESTION:
Why are other central banks from around the world interested in how the Federal Reserve operates?

SUGGESTED ANSWER:
Some emerging democracies from around the world are using the Fed as a model as they improve their own central banks.

THE FED TODAY

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LESSON TWO:

HISTORY OF MONEY AND BANKING IN THE U.S.

LESSON OVERVIEW:

The historical footage in *The Fed Today* video introduced students to the origins of money and banking in the U.S. This lesson expands on the video content with activities that help students analyze the impact of important events in the history of money and banking. Students learn about the first paper money issued by the Continental Congress to finance the American Revolution. They evaluate early attempts at central banking, the Free Banking Era, bank panics, and the establishment of the Federal Reserve System. Small groups of students will complete a timeline that identifies ten important money and banking events leading up to the establishment of the Federal Reserve System. Having placed the events correctly on the timeline, students will describe their economic impact.

STUDENT OBJECTIVES:

Students will:

- Analyze historical events leading up to the establishment of the Federal Reserve System.
- Identify reasons for the lack of confidence in the U.S. banking system early in the nation's history.
- Evaluate the economic impact of important events in the history of money and banking in the U.S.

TIME NEEDED:

One-two 50-minute class periods

MATERIALS:

- Teacher Background: *Significant Events in the History of U.S. Money and Banking*
- Classroom Visual: *Ten Important Events in the History of Money and Banking in the United States*
- Student Handout: *U.S. Banking and the Federal Reserve Timeline*
- Answer Key: *U.S. Banking and the Federal Reserve Timeline*
- Access to the FED101 website: http://www.kc.frb.org/fed101/history/ to learn more about the history of money and banking. On-line quiz available. (Optional)

TEACHER PREPARATION:

1. Review Teacher Background: *Significant Events in the History of U.S. Money and Banking.*
2. Review classroom visual and handouts.
3. Create group sets of Classroom Visual: *Ten Important Events in the History of Money and Banking in the U.S.*
4. Create group sets of Student Handout: *U.S. Banking and the Federal Reserve timeline.*
5. Review history section on the FED101 website: http://www.kc.frb.org/fed101/history/ for additional on-line activities about the history of money and banking. (Optional)

ACTIVITY:

Constructing a Money and Banking Timeline

PROCEDURES:

1. Have students recall some of the early historical events described in *The Fed Today* video. Ask students to analyze reasons why people during the 1800s did not have much confidence in the money and banking system. Remind students of all the various notes that were issued by states,banks, and even private companies. Students may also recall from the video that banks did not always have enough money to pay depositors,and they had to close down.
2. Explain that in this lesson they will analyze the impact of some important events in the history of money and banking.This analysis begins with currency printed to finance the American Revolution.
3. Project the Classroom Visual: *Ten Important Events in the History of Money and Banking in the United States.* Explain to students that these events are not listed in chronological order, and that they will soon be placing them in the appropriate spaces on a historical timeline. Emphasize to students that not all historians agree on the importance of these ten events, but the establishment of the Federal Reserve System is certainly one of the most notable. After reviewing the teacher background information,discuss the ten events and their economic significance with the class.
4. Divide students into small groups.Give each group a copy of the *Ten Important Events in the History of Money and Banking in the U.S.* and a copy of the *U.S. Banking and the Federal Reserve Timeline.*
5. Explain to students that each group will need to enter the correct event for each of the ten historical time periods in the blank box sections of the timeline. Students will then complete the information required in the "Impact"boxes based on earlier class discussion.
6. Ask the groups to report back on specific events,including their analysis of those events'impact on the economy. (An answer key is provided in this lesson for checking student responses).
7. **Teacher Summary:** Explain to students that although not all historians will agree on the most important events in the history of money and banking, the establishment of the Federal Reserve System is certainly one of the most important.Ask for student participation to summarize the following:
   - During many periods in the 1800s, people lacked confidence in money and the banking system in the U.S.
   - Before the issuance of paper money was effectively regulated,people preferred to use gold and silver coins.
   - Establishing a central bank in the U.S. was a controversial issue because many people were afraid of giving too much financial power to a central government authority.

EXTENDING THE LESSON:

Have students visit the FED101 website at http://www.kc.frb.org/fed101/history/. Students can learn more about the history of central banking, link to other historical sites, and take an on-line quiz.

DISCUSSION POINT:

Myth:

The Federal Reserve Act was passed illegally under a cloak of secrecy and was started by an elite group of private bankers.

REALITY:

The Federal Reserve System was created by the Federal Reserve Act and signed into law by President Woodrow Wilson on December 23, 1913.Although the Act was passed in the final days of the legislative session,it had been debated for some time in earlier versions.Because the regional Federal Reserve Banks are privately owned,and most of their directors are chosen by their stockholders,it is common to hear that control of the Fed is in the hands of elite bankers. However, individuals do not own stock in Federal Reserve Banks.Only banks that are members of the System hold the stock. Ownership and membership are synonymous.

Teacher Background

SIGNIFICANT EVENTS IN THE HISTORY OF U.S. MONEY & BANKING

(Taken from FED101 at http://www.kc.frb.org/fed101/history/)

1775-1791: U.S. Currency in the Beginning

To finance the American Revolution, the Continental Congress printed the new nation's first paper money. Known as "Continentals," the flat currency notes were issued in a large quantity and that led to inflation,which,although mild at first,rapidly accelerated as the war progressed. Eventually people lost faith in the notes, and the phrase "Not worth a Continental" came to mean "utterly worthless."

1791-1811: First Attempt at Central Banking

At the urging of Treasury Secretary Alexander Hamilton,in 1791 Congress established the First Bank of the United States, headquartered in Philadelphia. It was the largest corporation in the country and was dominated by big banking and money interests. Many agrarian-minded Americans, uncomfortable with the idea of a large and powerful central bank, opposed it. By 1811 when the bank's 20-year charter expired, Congress refused, by one vote, to renew it.

1816-1836:A Second Try Fails

By 1816 the political climate was again in favor of a central bank; by a narrow margin,Congress agreed to charter the Second Bank of the United States. But when Andrew Jackson, a central bank foe, was elected president in 1828,he vowed to kill it.His attack on its banker-controlled power touched a popular nerve with Americans, and when the Second Bank's charter expired in 1836,it was not renewed.

1836-1865:The Free Banking Era

State-chartered banks and unchartered "free banks" took hold during this period, issuing their own notes, redeemable in gold or specie. Banks also began offering demand deposits to enhance commerce. In response to a rising volume of check transactions, the New York Clearinghouse Association was established in 1853 to provide a way for the city's banks to exchange checks and settle accounts.

1863: National Banking Act

During the Civil War the National Bank Act of 1863 was passed.This created national banks, which issued circulating notes that had to be backed by U.S. government securities. An amendment to the Act required taxation on state bank notes but not on national bank notes, effectively creating a uniform currency for the nation. Despite taxation on their notes, state banks continued to flourish because of the growing popularity of demand deposits, which had taken hold during the Free Banking Era.

1873-1907: Financial Panics Prevail

Although the National Bank Act of 1863 established some measure of currency stability for the growing nation, bank runs and financial panics continued to plague the economy. In 1893 a banking panic triggered the worst depression the United States had ever seen,and the economy stabilized only after the intervention of financial mogul J.P. Morgan.It was clear that the nation's banking and financial system needed serious attention.

1907: A Very Bad Year

In 1907 a bout of speculation on Wall Street ended in failure, triggering a particularly severe banking panic. J.P. Morgan was again called upon to avert disaster. By this time most Americans wanted reform of the banking system, but the structure of that reform was cause for deep division among the country's citizens. Conservatives and powerful "money trusts" in the big Eastern cities were vehemently opposed by "progressives." But there was a growing consensus among all Americans that a central banking authority was needed to ensure a healthy banking system and provide for an elastic currency.

1908-1912: The Stage is Set for a Decentralized Central Bank

The Aldrich-Vreeland Act of 1908, passed as an immediate response to the panic of 1907, provided for emergency currency issues during crises. It also established the National Monetary Commission to search for a long-term solution to the nation's banking and financial problems. Under the leadership of Sen. Nelson Aldrich, the commission developed a banker-controlled plan. William Jennings Bryan and other progressives fiercely attacked the plan; they wanted a central bank under public, not banker, control. The 1912 election of Democrat Woodrow Wilson killed the Republican Aldrich plan, but the stage was set for the emergence of a decentralized central bank.

1912: Woodrow Wilson as Financial Reformer

Though not personally knowledgeable about banking and financial issues, Woodrow Wilson solicited expert advice from Virginia Rep. Carter Glass, soon to become the chairman of the House Committee on Banking and Finance, and from the Committee's expert adviser, H. Parker Willis, formerly a professor of economics at Washington and Lee University. Throughout most of 1912 Glass and Willis labored over a central bank proposal, and by December 1912 they presented Wilson with what would become, with some modifications, the Federal Reserve Act.

1913: The Federal Reserve System is Born

From December 1912 to December 1913 the Glass-Willis proposal was hotly debated, molded and reshaped. By December 23, 1913, when President Woodrow Wilson signed the Federal Reserve Act into law, it stood as a classic example of compromise—a decentralized central bank that balanced the competing interests of private banks and populist sentiment.

1914: Open for Business

Before the new central bank could begin operations, the Reserve Bank Organizing Committee, comprised of Treasury Secretary William McAdoo, Secretary of Agriculture David Houston, and Comptroller of the Currency John Skelton Williams, had the arduous task of building a working institution around the bare bones of the new law. But by Nov. 16, 1914, the 12 cities chosen as sites for regional Reserve Banks were open for business, just as hostilities in Europe erupted into World War I.

1914-1919: Fed Policy during the War

When World War I broke out in mid-1914, U.S. banks continued to operate normally, thanks to emergency currency issued under the Aldrich-Vreeland Act of 1908. But the greater impact in the United States came from the Reserve Banks' ability to discount banker's acceptances. Through this mechanism, the United States aided the flow of trade goods to Europe, indirectly helping to finance the war until 1917, when the United States officially declared war on Germany and financing our own war effort became paramount.

1920s: The Beginning of Open Market Operations

Following World War I, Benjamin Strong, head of the New York Fed from 1914 to his death in 1928, recognized that gold no longer served as the central factor in controlling credit. Strong's aggressive action to stem a recession in 1923 through a large purchase of government securities gave strong evidence of the power of open market operations to influence the availability of credit in the banking system. During the 1920s the Fed began using open market operations as a monetary policy tool. During his tenure, Strong also elevated the stature of the Fed by promoting relations with other central banks, especially the Bank of England.

1929-1933: The Market Crash and the Great Depression

During the 1920s Virginia Rep. Carter Glass warned that stock market speculation would lead to dire consequences. In October 1929 his predictions were realized when the stock market crashed, and the nation fell into the worst depression in its history. From 1930 to 1933 nearly 10,000 banks failed, and by March 6, 1933, newly inaugurated President Franklin Delano Roosevelt declared a bank holiday that lasted four days, while government officials grappled with ways to remedy the nation's economic woes. Many people blamed the Fed for failing to stem speculative lending that led to the crash, and some also argued that inadequate understanding of monetary economics kept the Fed from pursuing policies that could have lessened the depth of the Depression.

1933: The Depression's Aftermath

In reaction to the Great Depression, Congress passed the Banking Act of 1933, better known as the Glass-Steagall Act, calling for the separation of commercial and investment banking and requiring use of government securities as collateral for Federal Reserve notes. The Act also established the Federal Deposit Insurance Corporation (FDIC), placed open market operations under the Fed, and prohibited interstate banking. This prohibition had profound future implications, as holding companies became a prevalent structure for banks to do business across state lines.

1935: More Changes to Come

The Banking Act of 1935 called for further changes in the Fed's structure, including the creation of the Federal Open Market Committee (FOMC) as a separate legal entity, removal of the Treasury Secretary and the Comptroller of the Currency from the Fed's governing board, and the establishment of members' terms at 14 years. Following World War II, the Employment Act added the goal of promoting maximum employment to the list of the Fed's responsibilities. In 1956 the Bank Holding Company Act named the Fed as the regulator for bank holding companies, and in 1978 the Humphrey-Hawkins Act required the Fed chairman to report to Congress twice annually on monetary policy goals and objectives.

1951: The Treasury Accord

From its founding in 1913 to the years up to and following World War II, the Fed largely supported the Treasury's fiscal policy goals. When the Korean War broke out in 1951, Fed chairman William McChesney Martin again faced pressure from the Treasury to maintain low interest rates to help provide funds for the war effort. Martin, however, worked closely with the Treasury to break the long-standing practice of supporting government bond interest rates. Since then, the Fed has remained staunchly independent in its use of open market operations to support its monetary policy goals.

1970s-1980s: Inflation and Disinflation

The 1970s saw inflation skyrocket as producer and consumer prices rose, oil prices soared, and the federal deficit more than doubled. By August 1979, when Paul Volcker was sworn in as Fed chairman, drastic action was needed to break inflation's stranglehold on the U.S. economy. Volcker's leadership as Fed chairman during the 1980s, though painful in the short term, was successful overall in bringing double-digit inflation under control.

1980: Setting the Stage for Financial Modernization

The Monetary Control Act of 1980 required the Fed to price its financial services competitively against private sector providers and to establish reserve requirements for all eligible financial institutions. The Act marks the beginning of a period of modern banking industry reforms. Following its passage, interstate banking proliferated, and banks began offering interest-paying accounts and instruments to attract customers from brokerage firms. Barriers to insurance activities, however, proved more difficult to circumvent. Nonetheless, momentum for change was steady, and by 1999 the Gramm-Leach-Bliley Act was passed, in essence overturning the Glass-Steagall Act of 1933 and allowing banks to offer a menu of financial services, including investment banking and insurance sales.

1990s: The Longest Economic Expansion

Two months after Alan Greenspan took office as Fed chairman, the stock market plummeted—on October 19, 1987. In response, he ordered the Fed to issue a one-sentence statement before the start of trading on October 20: "The Federal Reserve, consistent with its responsibilities as the nation's central bank, affirmed today its readiness to serve as a source of liquidity to support the economic and financial system." Since then, the Fed has used monetary policy on a number of occasions—including the credit crunch of the early 1990s and the Russian default on government bonds—to keep potential financial problems from adversely affecting the real economy. Greenspan's tenure has been marked by generally declining inflation and the longest peacetime economic expansion in our country's history.

2000 & Beyond

The Federal Reserve faces many new challenges in the financial services industry: deregulation, technological advances in the payments system, and the move to a global economy.

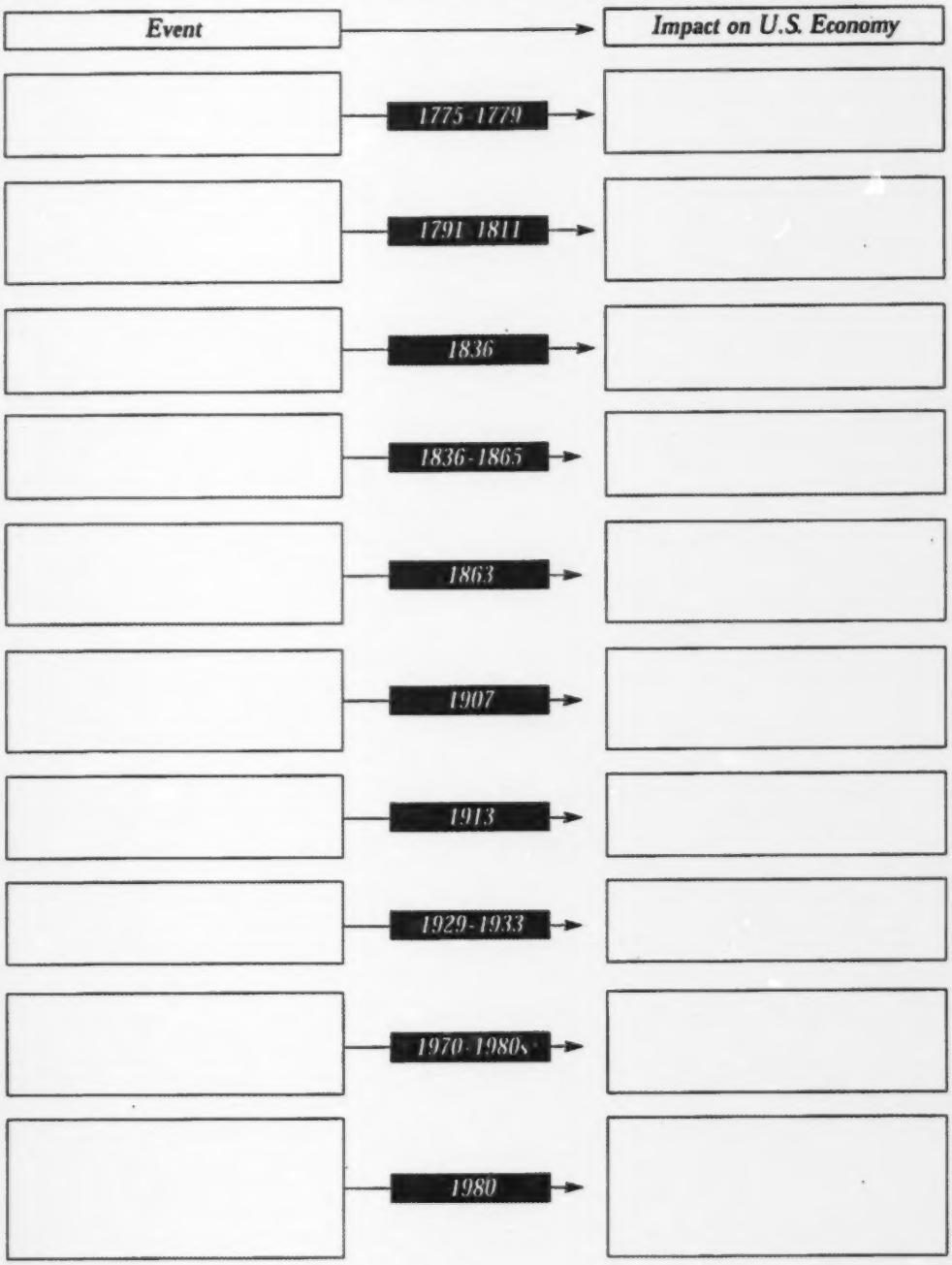
Classroom Visual

TEN IMPORTANT EVENTS IN THE HISTORY OF MONEY AND BANKING IN THE U.S.

1. **The Federal Reserve Act was passed** by Congress, orchestrated by President Woodrow Wilson, and established a much needed U.S. central bank.
2. **The Monetary Control Act marked the beginning of a period of modern banking industry reforms.** Following its passage, interstate banking proliferated,and banks began offering interest-paying accounts and instruments to attract customers from brokerage firms. By 1999 the Gramm-Leach-Bliley Act was passed, in essence overturning the Glass-Steagall Act of 1933 and allowing banks to offer a menu of financial services, including investment banking and insurance sales.
3. This was a time period that saw rapid **increases in inflation, skyrocketing oil prices,** and the doubling of the federal deficit.
4. The Great Depression resulted in the failure of nearly 10,000 banks during this four-year period. **A "bank holiday" was declared by Franklin Delano Roosevelt** to avoid bank runs.
5. President Andrew Jackson led the effort opposing the Second Bank of the United States. **The charter for the Second Bank of the U.S. expired.**
6. **The Free Banking Era** allowed many state-chartered, city, and private businesses to issue their own paper money.
7. During the Civil War **the National Bank Act of 1863 was passed,** creating a system of national banks whose currencies were backed by U.S. government securities.This Act allowed banks to issue a reliable and uniform currency for the nation.An amendment to the Act required taxation on state bank notes but not on national bank notes.
8. **Intervention by J.P. Morgan, a private citizen and banker, kept a severe bank panic from becoming a national disaster.** This lead to a consensus in support of a central banking authority.
9. **The Continental Congress issued Continental Currency** to help finance the American Revolution.
10. **U.S. Congress established the First Bank of the United States** with a 20-year charter as the nation's first central bank.

Student Handout

U.S. Banking and the Federal Reserve Timeline



Answer Key

U.S. Banking and the Federal Reserve Timeline

Event		Impact on U.S. Economy
The Continental Congress issued Continental Currency.	1775-1779	Printed in excess,Continental notes created inflation,decreasing public confidence in paper money.
U.S. Congress established the First Bank of the United States.	1791-1811	This was the first attempt at creating a central bank in the U.S.,beginning a controversy that would continue into the next century.
The charter for the Second Bank of the U.S. expired.	1836	Without a central bank,there were no federal regulations on the banking industry.
The Free Banking Era.	1836-1865	With no national currency, state-chartered banks and unchartered "free banks"issued their own notes.
The National Bank Act of 1863 was passed.	1863	The Act provided more reliable money and a stable banking industry by effectively creating a uniform currency for the nation.
Intervention by J.P. Morgan,a private citizen and banker, kept a severe bank panic from becoming a national disaster.	1907	The Bank Panic of 1907 rekindled the debate about creating a central bank, leading to the passage of the Federal Reserve Act in 1913.
Federal Reserve Act is passed.	1913	The Federal Reserve established a true central bank unlike the First and Second Banks of the United States.
A "bank holiday" was declared by President Franklin Delano Roosevelt.	1929-1933	Reduced bank panics.
Increases in inflation,skyrocketing oil prices.	1970-1980s	The Federal Reserve's credibility increased when Paul Volcker's leadership as Fed chairman was successful overall in bringing double-digit inflation under control.
The Monetary Control Act marks the beginning of a period of modern banking industry reforms.	1980	The act marks the beginning of a period of modern banking industry reforms. Following its passage, interstate banking proliferated,and banks began offering interest-paying accounts and competing with mutual funds and brokerage firms.

THE FED TODAY

History, Structure, Monetary Policy, Banking Supervision, Financial Services, and More!

LESSON THREE:

IS THE FED PUBLIC OR PRIVATE?

LESSON OVERVIEW:

"The Fed has a unique public/private structure that operates independently within the government, but independent of it," explains the narrator in *The Fed Today* video. The question of the Fed as a public or private organization will be explored further in this lesson. Sometimes, as it is in the video, the Federal Reserve is referred to as a "decentralized central bank" because of its unique structure that is both public and private. In this lesson students complete a Venn Diagram that helps them examine the unique public and private elements that make the Fed independent within the U.S. government. The content for this activity is based on a student handout (Structural Elements of the Fed) that outlines ten features of the Federal Reserve and the significance of each. The Venn Diagram provides students with a way to illustrate their findings about the elements of the Fed that are private, public, or both.

STUDENT OBJECTIVES:

Students will:

- Identify the public and private elements of the Federal Reserve System.
- Explain the concept of a "decentralized central bank."
- Analyze and categorize features of the Fed as either public, private, or both.

TIME NEEDED:

One 50-minute class period

MATERIALS:

- Classroom Visual: *Structural Elements of the Fed*
- Student Handout #1: *Significance of the Structural Elements of the Fed*
- Student Handout #2: *Is the Fed Public or Private?*—Venn Diagram
- Answer Key: *Is the Fed Public or Private?*—Venn Diagram
- Access to the FED101 website: http://www.kc.frb.org/fed101/structure/ to learn more about the structure of the Federal Reserve. Additional on-line activities available. (Optional)

TEACHER PREPARATION:

1. Review class handouts.
2. Prepare group sets of handouts.
3. Review structure section on the FED101 website: http://www.kc.frb.org/fed101/structure/ to learn more about the structure of the Federal Reserve. Additional on-line activities available. (Optional)

ACTIVITY:

Determining if the Fed is Public or Private

PROCEDURES:

1. Write on the board: "Is it public or is it private?" Explain that today's lesson on the Fed should help to answer whether the Federal Reserve is a government agency or a private corporation. Ask students to recall from *The Fed Today* video or other lessons what they remember about the unique structure of the Federal Reserve.
2. Project Classroom Visual: *Structural Elements of the Fed*. Review and discuss each element with students, checking for understanding. Ask for student participation on the significance of each structural element.
3. Distribute Student Handout #1: *Significance of the Structural Elements of the Fed*. Discuss the significance of each element, focusing on such issues as decision-making, funding, ownership, and checks and balances.
4. Distribute Student Handout #2: *Is the Fed Public or Private?*—Venn Diagram. Ask students to place the number of the structural element in the correct space on the Venn Diagram.
5. Project the answers to the Venn Diagram exercise and ask students to assess their answers. Ask them once again if they think the Federal Reserve is a government agency or a private corporation and why.
6. **Teacher Summary:** Remind students that the Federal Reserve is made up of both public and private elements and that it is a "decentralized central bank" that incorporates regional input for decisions on monetary policy. Ask for student participation to summarize the following main points:
   - The Board of Governors of the Federal Reserve represents the public component of the Fed.
   - The 12 Federal Reserve Banks and their boards of directors represent the private element of the Fed.
   - The Federal Open Market Committee (FOMC) is the System's most important monetary policymaking body and relies on national and regional input to make monetary policy decisions.
   - The Federal Reserve is self-financed primarily from interest it earns on its portfolio of U.S. Treasury Securities, insulating it from much of the political pressure that exists in the Legislative and Executive Branches of the U.S. government.

EXTENDING THE LESSON:

Have students visit the FED101 website at http://www.kc.frb.org/fed101/structure/. Students can learn more about the structure of the Federal Reserve and the Federal Open Market Committee and take an on-line quiz.

DISCUSSION POINT:

Myth:

The Fed is privately owned by bankers and favors the banking industry.

REALITY:

The Federal Reserve is not a private corporation. It is part private and part public, with its Board of Governors an agency of the United States government. The regional Federal Reserve Banks are private corporations acting as agents of the government that are owned by their member banks.

Classroom Visual

STRUCTURAL ELEMENTS OF THE FED

Number	*Elements*	*Significance*
1.	**The Federal Reserve Act was created by Congress.** Congress has the ultimate power to change or even repeal the Federal Reserve Act.	
2.	**The Fed is governed by a seven-member Board of Governors,** each appointed by the President and confirmed by the Senate.	
3.	**Each Federal Reserve Bank has a board of directors** represented by bankers, business owners, and other professionals.	
4.	**Federal Reserve Banks provide financial services to depository institutions** (banks), such as coin, currency, check,and electronic funds processing.The Fed is sometimes referred to as the bankers'bank because it provides these services.	
5.	**The Federal Reserve is self-financed** primarily from interest earned on its portfolio of government securities. Other income is generated from providing banking services (such as cash, check,and electronic funds processing) to commercial banks.	
6.	**The Federal Reserve serves as the fiscal agent for the U.S. government.**	
7.	The Federal Open Market Committee (FOMC) is the Fed's principal body for setting monetary policy. **The FOMC consists of the seven governors from the Board of Governors and the 12 Reserve Bank presidents.**	
8.	**Employees from the 12 Federal Reserve Banks are not government employees.** Federal Reserve Banks are not subject to the same hiring restrictions as government agencies.	
9.	**Federal Reserve Bank presidents are nominated by the Bank's board of directors and approved by the Board of Governors.** Reserve Bank presidents serve five-year terms, with their salaries subject to approval by the Board of Governors.	
10.	**Banks that become members of the Federal Reserve must purchase stock in their regional Federal Reserve Bank.** Member banks receive a fixed six-percent annual dividend on this stock.	

Student Handout #1

SIGNIFICANCE OF THE STRUCTURAL ELEMENTS OF THE FED

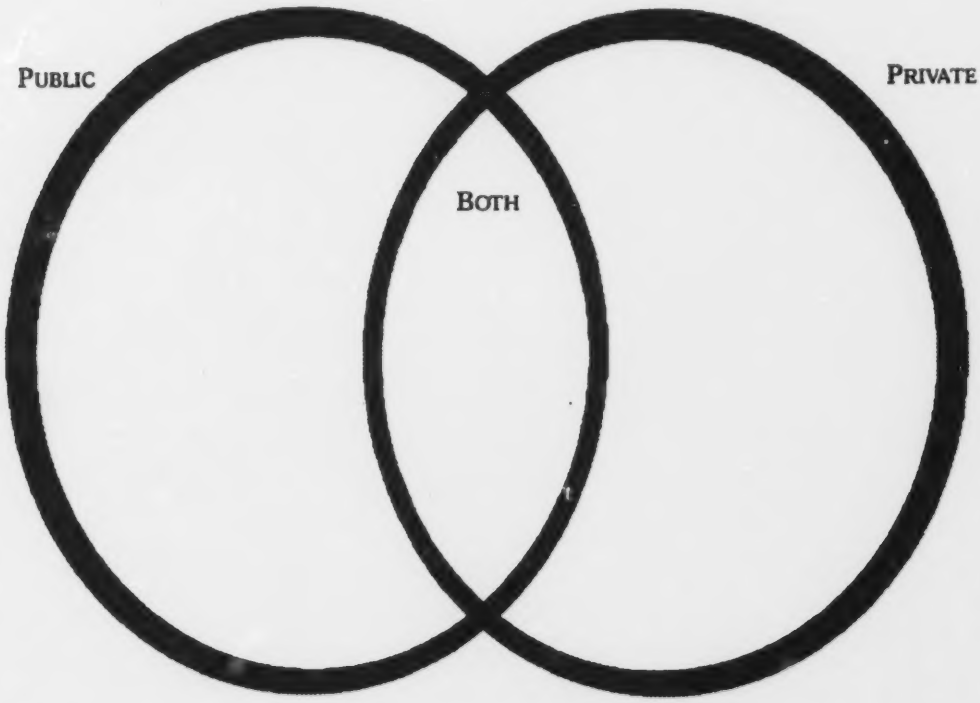
Number	*Elements*	*Significance*
1.	**The Federal Reserve Act was created by Congress.** Congress has the ultimate power to change or even repeal the Federal Reserve Act.	Although the Fed is relatively independent within government, Congress created the Federal Reserve and it has the power to modify it.
2.	**The Fed is governed by a seven-member Board of Governors,** each appointed by the President and confirmed by the Senate.	Federal Reserve Board appointments must be approved by both the President and Congress, thereby creating a system of checks and balances.
3.	**Each Federal Reserve Bank has a board of directors** represented by bankers, business owners, and other professionals.	Federal Reserve Banks' boards of directors come from a variety of banking, business, and community environments.
4.	**Federal Reserve Banks provide financial services to depository institutions** (banks), such as coin, currency, check, and electronic funds processing. The Fed is sometimes referred to as the bankers' bank because it provides these services.	As a competitive provider of payments services, the Fed understands payment system issues and the need for stability.
5.	**The Federal Reserve is self-financed** primarily from interest earned on its portfolio of government securities. Other income is generated from providing banking services (such as cash, check, and electronic funds processing) to commercial banks.	Without having to rely on an imposed budget, the Federal Reserve is insulated from the day-to-day political pressures that exist in the Legislative and Executive Branches.
6.	**The Federal Reserve serves as the fiscal agent for the U.S. government.**	The Fed is the government's bank, effectively managing the Treasury Department's checking account.
7.	The Federal Open Market Committee (FOMC) is the Fed's principal body for setting monetary policy. **The FOMC consists of the seven governors from the Board of Governors and the 12 Reserve Bank presidents.**	The FOMC incorporates important public/private and national/regional input into the decision-making process for setting monetary policy in the U.S.
8.	**Employees from the 12 Federal Reserve Banks are not government employees.** Federal Reserve Banks are not subject to the same hiring restrictions as government agencies.	Operating more like business organizations, Reserve Banks must minimize cost and generate revenue to compete for business with other U.S. financial institutions.
9.	**Federal Reserve Bank presidents are nominated by the Bank's board of directors and approved by the Board of Governors.** Reserve Bank presidents serve five-year terms, with their salaries subject to approval by the Board of Governors.	Federal Reserve Bank presidents are not political appointees, and are able to avoid day-to-day political pressures.
10.	**Banks that become members of the Federal Reserve must purchase stock in their regional Federal Reserve Bank.** Member banks receive a fixed six-percent annual dividend on this stock.	There has been a lot of speculation about who owns the Fed. Banks that become members of the Federal Reserve are the "owners" of the Fed.

Student Handout #2

Is the Fed Public or Private?—Venn Diagram

Instructions:

Review the structural elements of the Fed. Decide whether each element is public, private, or both. Place the number of the structural element in the most appropriate area of the Venn Diagram. If a structural element describes both a public and private aspect of the Federal Reserve, place the number in the area marked "Both."

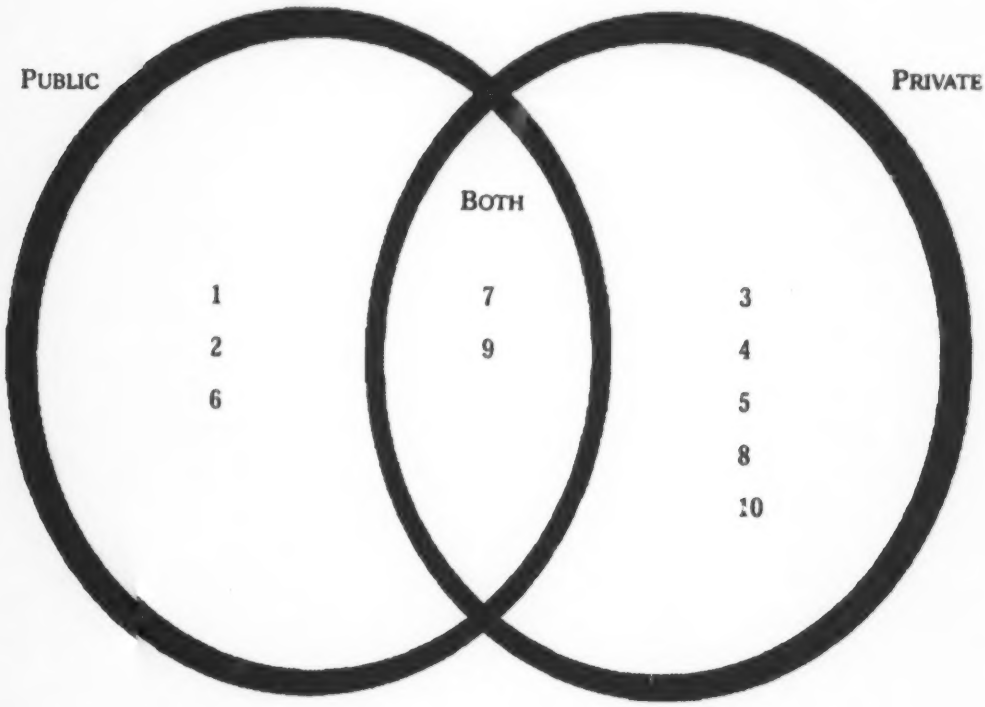


Answer Key

IS THE FED PUBLIC OR PRIVATE—VENN DIAGRAM

Instructions:

Review the structural elements of the Fed. Decide whether each element is public, private, or both. Place the number of the structural element in the most appropriate area of the Venn Diagram. If a structural element describes both a public and private aspect of the Federal Reserve, place the number in the area marked "Both."



LESSON FOUR:

THE FED'S ROLE IN MAKING AND SETTING MONETARY POLICY

OVERVIEW:

"The foundation of the Fed rests upon developing a sound monetary policy for our country, a monetary policy whose primary focus is on price stability," states Charles Osgood in *The Fed Today* video. This lesson is specially designed in two parts. Part One discusses the Fed's role in making monetary policy and introduces the concept of inflation, while Part Two focuses on how and why the Fed sets monetary policy.

PART ONE:

THE FED'S ROLE IN MAKING MONETARY POLICY

LESSON OVERVIEW:

This lesson focuses on price stability and inflation. Students discuss how to define inflation and analyze the relationship between the money supply and the price level using the Fisher Equation. Students then examine the harmful effects of inflation on the economy. Finally, small groups of students determine how business and consumer behavior changed during the 1970s when inflation had a negative impact on the nation's economy.

STUDENT OBJECTIVES:

Students will:

- Define inflation and list its causes.
- Use the Fisher Equation to describe the relationship between the money supply and the price level.
- Identify at least three harmful effects of inflation.
- Understand how inflation can change the behavior of individuals and businesses.

TIME NEEDED:

One-two 50-minute class periods

MATERIALS:

- Classroom Visual #1: *Understanding Inflation* and
  Classroom Visual #2: *The Fisher Equation*
- Student Handout #1: *How Inflation Changes Individual and Business Decisions*
- Answer Key: *How Inflation Changes Individual and Business Decisions*
- Access to the FED101 website: http://www.kc.frb.org/fed101/policy/ to learn more about monetary policy and economic indicators. Additional on-line activities available. (Optional)

TEACHER PREPARATION:

1. Review the content in the classroom visuals and student handouts.
2. Prepare copies of Student Handout #1 for five student groups.
3. Review FED101 website at http://www.kc.frb.org/fed101/policy/ to learn more about monetary policy and economic indicators, and additional on-line activities. (Optional)

ACTIVITY:

Part One: How Inflation Affects the Economy

PROCEDURES:

1. Ask students if they know what inflation is and why it occurs. Ask them how they think inflation can affect individuals and businesses.
2. Project an overhead slide of Classroom Visual #1: *Understanding Inflation*. (Do not project the section about harmful effects of inflation until later.) Provide a general definition of inflation and discuss some of its causes. Show the connection between the money supply and the price level by demonstrating the Fisher Equation shown on Classroom Visual #2. Ask students to complete the example provided. Emphasize that effective monetary policy by the Fed can help control inflation and keep prices stable.
3. Return to Classroom Visual #1: *Understanding Inflation*. Ask students, "What's the effect of rapid increases in inflation?" Provide examples from the second half of Classroom Visual #1: *Understanding Inflation*.
4. Divide the class into five groups and distribute Student Handout #1: *How Inflation Changes Individual and Business Decisions*. Explain to students that inflation is often measured using the Consumer Price Index (CPI). The CPI is a measure of the overall price level for consumer goods. Changes in the CPI from year-to-year are an often-used measure of inflation. Changes in the components of the CPI also tell us about changes in the relative prices of key consumer goods.

   Inflation was particularly severe in the 1970s and early 1980s. Using the information in Student Handout #1, describe how overall inflation—measured by the CPI-U Total column—and how prices for specific types of goods—see columns for Housing, Apparel, Food, Food Away from Home, Transportation, Fuel, and Gasoline—behaved over the years from 1971 to 1981. Emphasize that the overall CPI (CPI-U Total) rose at annual rates of 10 percent or faster in four years: 1974, 1979, 1980, and 1981. Explain to students that everyone is affected by inflation, but certain individuals, businesses, and governmental units are affected more than others.
5. Ask groups to read through the five categories of individuals and businesses that were especially affected by high inflation rates during the late 1970s and early 1980s. Explain to students that many individuals and businesses will change their spending and investing behavior in ways that may be costly to them and be harmful to the economy. Consumers and business will spend time and money to attempt to avoid the negative effects of inflation. One example of such behavior might be a restaurant owner who was forced to constantly reprint menus during the 1970s to keep pace with the rising prices for food items and wages. Investors may find that it is more difficult to estimate future costs and returns from projects.
6. Assign each of the five student groups an individual or business category. Ask them to discuss how that category's spending and investment decisions might have changed during the inflationary era of the 1970s.
7. Instruct each group to report its findings to the rest of the class. Students should choose a recorder and a spokesperson. Teachers may supplement the student presentations by referring to the Answer Key: *How Inflation Changes Individual and Business Decisions*.
8. **Teacher Summary:** Remind students that the Fed's primary goal of monetary policy is to minimize inflation. Ask for student participation to summarize the following main points:
   - Inflation is defined as a rise in the general level of prices over a sustained period of time.
   - Inflation can occur when short-term increases in the supply of money increase faster than the production of goods and services.
   - The Fisher Equation illustrates the principle that an increase in the supply of money is likely to increase the level of prices (with all other variables remaining the same).
   - Inflation can cause negative effects on the economy because of changes in consumer behavior and business decisions.

EXTENDING THE LESSON

Have students visit the FED101 website at http://www.kc.frb.org/fed101/policy/. Students can learn more about monetary policy and economic indicators, and take an on-line quiz.

DISCUSSION POINT:

Myth:

When the Fed prints money for banks it increases the national debt.

REALITY:

Federal Reserve Banks do not print money, they manage the inventory of the existing stock of currency. Money is printed by the Bureau of Printing and Engraving, an agency of the U.S. Treasury Department. Government debt is generated by government borrowing. The amount of borrowing, measured by the deficit, is not decided by the Fed. The government's debt and deficit are the result of the budgetary decisions of the Congress and President.

Classroom Visual #1

UNDERSTANDING INFLATION

DEFINITION AND CAUSES OF INFLATION:

- Inflation is defined as a rise in the general level of prices over a sustained period of time.
- Inflation can be caused by too many dollars chasing too few goods.
- Inflation can be caused by increased costs of making and selling goods.
- Inflation is often measured by the Consumer Price Index (CPI).

HARMFUL EFFECTS OF RAPID INFLATION:

- Inflation makes people worse off when their incomes don't rise as rapidly as the overall price level.
- Inflation may cause lenders to lose money because they may be repaid with dollars that have less value than when they made their loans.
- Inflation causes savers to lose money because a dollar they save today will have less value in the future when it is spent.
- Inflation makes it harder for businesses to plan, which may reduce investment in future projects.
- Inflation causes owners of financial assets to suffer when those assets don't increase in value as much as price levels rise.
- Interest rate-sensitive industries, such as mortgage lenders, may suffer as inflation drives up long-term interest rates, and Federal Reserve tightening raises short-term rates.
- At a national level, monetary policy, designed to slow inflation, typically results in lost output and employment in the short run.

Classroom Visual #2

THE FISHER EQUATION

Economists and the Fed use an equation that was created by Irving Fisher, a Yale economist, to show the relationship between changes in the supply of money and changes in the price level. This mathematical equation is called the *Equation of Exchange* or the *Fisher Equation*. The equation developed by Irving Fisher is:

MV=PQ (M times V equals P times Q)

M = the amount of money in circulation

V = the velocity of circulation of that money over a year

P = the price level (the average of all prices of goods and services)

Q = the physical quantity of the final output of goods and services in one year

PQ= the total amount spent in an economy over a year

The Fisher Equation states that: M (the money supply) x V (the average number of times each monetary unit is spent per year on final goods and services) is identical to P (the price level) x Q (the physical quantity of the final output of goods and services in one year). MV = PQ, for short.

Since the velocity of money, V, is fairly stable, an increase in the supply of money, M, usually results in an increase in total spending. If M is increased in the short term, there is usually a corresponding increase in price level, P, assuming that Q (output) can't be increased in the short-term. **The end result is that a short-term increase in the money supply will cause an increase in the future price level.**

Since the Fed controls the amount of money in the economy, the Fisher Equation suggests a strong correlation between Federal Reserve monetary policy and the average level of prices, or inflation.

HOW THE FISHER EQUATION WORKS

Assign the following values to M, V, P, Q:

M = 100
V = 4
P = 10 **Equation Check: (100)(4) = (10)(40)**
Q= 40

Now increase M (money supply):
Note: V and Q remain constant in short term:

M = 200
V = 4
P = ? **Solve for P:** **(200)(4) = (?)(40)**
Q= 40 **? = 20**

The price level (P) doubled when the money supply (M) doubled.

Student Handout #1

How Inflation Changes Individual and Business Decisions

The Consumer Price Index (CPI) is the number used to calculate percentage changes in the average level of prices for a basket of goods and services purchased by a typical urban family. The categories below show some of the major components of consumer spending and indicate how the price level for the overall CPI and these components changed on an annual basis from 1971 to 1981. The data suggest that the overall inflation rate was at its highest level in 1980. On an annual basis for the components of the CPI, the fastest annual increase was recorded for gasoline in 1980. (By contrast, in 1971, the slowest annual increase was recorded for gasoline.)

CPI—Seasonally Adjusted Annual Percent Change by CPI Category

	CPI-U (total)	Housing	Apparel	Food	Food Away From Home	Transportation	Fuel	Gasoline
1971	4.2%	4.3%	3.2%	3.1%	5.2%	5.2%	6.8%	0.5%
1972	3.3%	3.9%	2.1%	4.1%	4.0%	1.2%	4.4%	1.3%
1973	6.3%	4.3%	3.7%	13.3%	7.8%	3.2%	5.7%	9.8%
1974	**11.0%**	**11.3%**	**7.4%**	**13.7%**	**12.8%**	**11.2%**	**18.3%**	**35.4%**
1975	9.1%	10.5%	4.5%	8.4%	9.3%	9.4%	11.7%	6.8%
1976	5.8%	6.2%	3.7%	3.1%	6.8%	9.9%	8.9%	4.2%
1977	6.5%	6.8%	4.5%	5.9%	7.6%	7.0%	10.7%	5.8%
1978	7.6%	8.8%	3.5%	9.8%	9.1%	4.7%	6.8%	4.3%
1979	**11.3%**	**12.2%**	**4.4%**	**10.7%**	**11.2%**	**14.3%**	**10.8%**	**35.3%**
1980	**13.5%**	**15.7%**	**7.1%**	**8.5%**	**9.9%**	**17.8%**	**16.4%**	**39.0%**
1981	**10.4%**	**11.5%**	**4.8%**	**7.8%**	**9.0%**	**12.1%**	**14.6%**	**11.3%**

INSTRUCTIONS:

Describe the potential changes in spending and investing for the following individuals and businesses during the inflationary 1970s. These changes made the cost of living and of doing business increase.

Individual/Business	Change in Behavior during Times of Inflation
Supermarket	
Retiree on fixed income	
Building Contractor	
Saver	
Mortgage lender	

Answer Key

How Inflation Changes Individual and Business Decisions

Describe the potential changes in spending and investing for the following individuals and businesses during the inflationary 1970s. These changes made the cost of living and of doing business increase.

Individual/Business	*Suggested Answers: Change in Behavior during Times of Inflation*
Supermarket	During the periods of high inflation in the 1970s and early 1980s, many businesses were forced to make frequent changes to reflect rising prices. For supermarkets, such price changes were labor-intensive and costly. Before computer coding and scanning, stores had to manually place new labels on each item for each price change. In addition, promotional materials had a shorter life because the prices for individual items frequently changed.
Retiree on fixed income	Individuals on a fixed income lost purchasing power as a result of inflation. As the overall price level rose, individuals on fixed incomes found that, over time, their supply of dollars bought fewer goods and services. A retired person on a fixed income had reduced purchasing power during the inflationary period of the 1970s. A teacher, for example, who received a monthly retirement check of $1,000 in January of 1979, would be able to purchase less than $750 worth of goods and services by December 1981. This would have represented a 25 percent loss in purchasing power, which was impossible to recoup.
Building Contractor	Rapid inflation made it more difficult to make estimates and predict costs, which slowed future investment. Some building contractors facing rapid price increases in commodities such as lumber found it difficult to absorb the higher costs. The risks associated with new projects increased because of the added difficulty of estimating costs and prices in an inflationary environment.
Saver	Inflation reduced the value of savers' nest eggs. Their money lost purchasing power over time because the rate of inflation exceeded the return on their savings and investments.
Mortgage lender	Mortgage lenders were affected by inflation in the 1970s. Lenders held large loan portfolios of 30-year fixed-rate home mortgages, and many of these loans were made at low interest rates before the period of rapid inflation in 1973 and 1974. As inflation rose, these lenders found that the cost of business and the cost of deposits (interests rates) also increased, but the return on their mortgage loans remained constant. Ultimately this situation lead to the creation of the variable rate mortgage loan to reduce the risk mortgage lenders faced from inflation.

PART TWO:

THE FED'S ROLE IN SETTING MONETARY POLICY

LESSON OVERVIEW:

In Part Two, students will take an in-depth look at how monetary policy is set and why the Federal Open Market Committee (FOMC) makes decisions to affect the amount of money and credit in the economy. This lesson focuses on how monetary policy can affect short-term interest rates, employment, and economic growth. Student groups will play the roles of FOMC members. Each group will be assigned an economic scenario and then will be asked to make a recommendation on the appropriate monetary policy. Groups will be asked to answer additional questions that relate to the potential effects of their monetary policy decisions. Groups will then be asked to present their economic scenarios and monetary policy decisions to the rest of the class.

STUDENT OBJECTIVES:

Students will:

- Describe the goals of monetary policy.
- Identify the tools of monetary policy.
- Explain monetary policy's effect on short-term borrowing rates, employment, and economic growth.
- Analyze a real-world economic scenario and summarize it for the rest of the class.
- Identify several possible monetary policy options and then determine the appropriate option that corresponds to each scenario.
- Identify possible economic effects that could result from a given monetary policy.

TIME NEEDED:

One-two 50-minute class periods

MATERIALS:

- Classroom Visual #3: *The Tools of Monetary Policy* and Classroom Visual *#4:Open Market Operations*
- Copies of Student Handout #2:Example Scenario: *Stagflation—No Growth with High Inflation*
- Four group sets of Student Handout #3: *Potential Effects of Monetary Policy, scenarios 1-4.* (one for each group.)
- Answer keys for each scenario
- Access to the FED101 website: http://www.kc.frb.org/fed101/policy/ to learn more about monetary policy and economic indicators. Additional on-line activities available. (Optional)

TEACHER PREPARATION:

1. Review the content in the class visuals, handouts, and monetary policy scenarios.
2. Prepare copies of the example scenario for all students and the four monetary policy scenarios, one for each student group.

3. Review FED101 website at http://www.kc.frb.org/fed101/policy/ to learn more about monetary policy and economic indicators.Additional on-line activities available. (Optional)

ACTIVITY:

Part Two: Potential Effects of Monetary Policy

PROCEDURES:

1. Ask students to get into four groups.
2. Explain to students that the Federal Reserve can strongly influence the U.S. economy by setting monetary policy. Remind students about *The Fed Today* video's portrayal of the big table around which Federal Open Market Committee meetings take place. Ask them if they remember how often these meetings occur, who participates, and what is the committee's ultimate goal.These questions will be answered in Classroom Visual #3.
3. Project Classroom Visual #3: *The Tools of Monetary Policy* to the entire class. Discuss the three tools that can increase or decrease the amount of money and credit in the economy.
4. Emphasize that the primary monetary policy tool is open market operations. Using Classroom Visual #4,discuss how the Fed targets the federal funds rate by buying and selling Treasury securities through open market operations, which will likely impact other short-term commercial lending rates.Lastly, explain to students that changes in short-term lending rates may affect inflation, employment levels, and economic growth.
5. Explain to students that the FOMC must respond to a variety of economic conditions.The committee must decide whether to choose a loose monetary policy (by reducing the federal funds rate) or a tight one (by increasing the federal funds rate).Of course, the FOMC can also maintain the status quo by choosing to leave the federal funds rate unchanged.
6. Explain to the class that student groups will receive an economic scenario to analyze.They will then be asked to recommend the appropriate monetary policy. Distribute Student Handout #2:Example Scenario: *Stagflation—No Growth with High Inflation*. Review the scenario, checking for understanding. Inform students that this scenario of stagflation is taken from an actual period during the 1970s and 1980s. (In fact,all scenarios resemble real economic conditions that have occurred in recent history).
7. Distribute a different *Monetary Policy Scenario* to each of the four groups.Ask student groups to read and discuss the scenarios and answer the corresponding questions in the spaces provided.(Tell students that each group has been given a different scenario at random).
8. Each group is assigned the job of summarizing the scenario and explaining their answers to the rest of the class.
9. Teachers can refer to the suggested answers to the *Monetary Policy Scenarios* as each group completes its analysis.
10. **Teacher Summary:** Remind students that although monetary policy has three tools at its disposal,the primary tool is open market operations,or the buying and selling of U.S.Treasury securities.Ask for student participation to summarize the following main points:
    - The Fed can affect the federal funds rate by buying and selling U.S.Treasury securities.
    - Tight monetary policy is recommended when the economy is in danger of creating inflation, and loose monetary policy is recommended when the economy is showing signs of low economic and employment growth.
    - Monetary policy that leaves the federal funds rate unchanged is quite common.
    - Changing the federal funds rate may affect short-term borrowing rates, which can in turn affect spending and job growth.

EXTENDING THE LESSON:

Have students visit the FED101 website at http://www.kc.frb.org/fed101/policy/. Students can learn more about monetary policy and economic indicators,and take an on-line quiz.

Classroom Visual #3

THE TOOLS OF MONETARY POLICY

UNDERSTANDING MONETARY POLICY:

- The primary objective of monetary policy is to influence the amount of **money and credit** in the economy in order to help promote sustainable economic growth,full employment, and stable prices.
- The Federal Open Market Committee (FOMC) meets approximately eight times a year to **formulate the nation's monetary policy.**
- The voting members of the FOMC consist of the **seven members of the Board of Governors, the President of the Federal Reserve Bank of New York, and presidents of four other Reserve Banks** who serve on a one-year rotating basis.
- **Monetary policy is formulated in terms of a target for the federal funds rate,** the interest rate that banks charge one another for short-term loans.Changes to the federal funds rate typically affect other short-term commercial lending rates.

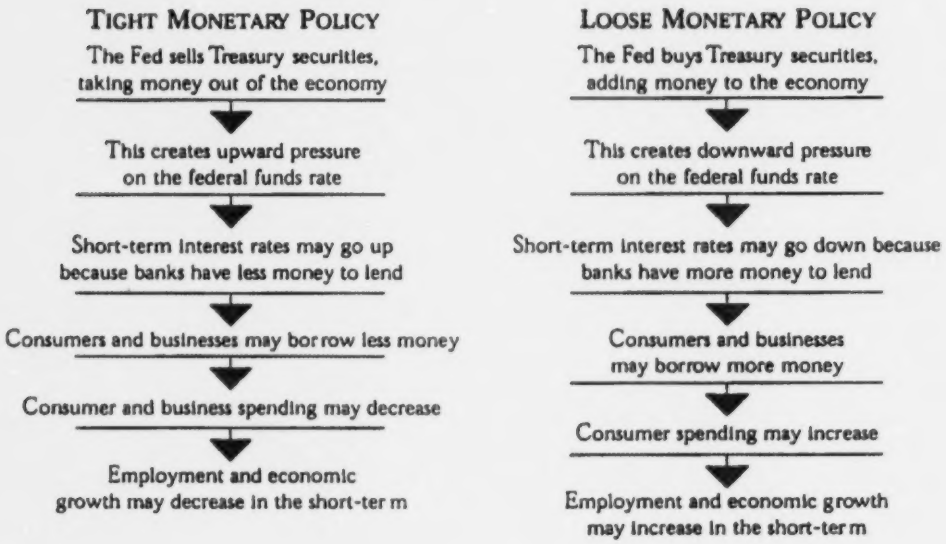
THE TOOLS OF MONETARY POLICY:

The Federal Reserve's three monetary policy tools are **open market operations, the discount rate and reserve requirements.**

- The most frequently used tool of monetary policy is **open market operations,** which involves buying and selling U.S. government securities.
- Adjusting the **discount rate,** the next most utilized tool, involves changing the interest rate charged on short-term loans to depository institutions by the Federal Reserve.
- Adjusting **reserve requirements,** a rarely used tool, involves changing the percentage of deposits that banks must keep on reserve in their vaults or on deposit at a Federal Reserve Bank.

Classroom Visual #4

OPEN MARKET OPERATIONS


TIGHT MONETARY POLICY
The Fed sells Treasury securities, taking money out of the economy
This creates upward pressure on the federal funds rate
Short-term interest rates may go up because banks have less money to lend
Consumers and businesses may borrow less money
Consumer and business spending may decrease
Employment and economic growth may decrease in the short-term
LOOSE MONETARY POLICY
The Fed buys Treasury securities, adding money to the economy
This creates downward pressure on the federal funds rate
Short-term interest rates may go down because banks have more money to lend
Consumers and businesses may borrow more money
Consumer spending may increase
Employment and economic growth may increase in the short-term

Student Handout #2

EXAMPLE SCENARIO:

STAGFLATION-NO GROWTH WITH HIGH INFLATION

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the list of questions,and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

Economic growth over the past year, measured by real gross domestic product (GDP) for the United States,has been negative. The number of jobs has declined and the already high unemployment rate has been rising, yet inflation pressures remain persistent. Moreover, most inflation and wage and salary indicators suggest that inflation has not subsided over the past year despite the decline in economic growth. Nominal interest rates also are very high, reflecting high inflation expectations. Your group is concerned that continued inflationary pressures are undermining the economy's already weak performance.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Suggested Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	**Raising** the short-term federal funds interest rate will slow the economy even further. Higher interest rates will tend to cause the economy to slow and potential output to be lost;however, over time this policy should reduce the inflationary pressure facing the economy.
How does your policy affect both the economy and the inflation rate?	A policy to slow the economy may lower economic growth in the short run (in the next year, for example). This same policy should also help to slow inflationary pressures in the longer run (during the next several years) and help reduce inflationary expectations.
What effect is your policy likely to have on the level of employment over the next six months?	A higher federal funds rate (tighter monetary policy) will tend to slow the already weak economy and cause additional job losses in the next year. However, this policy also should help to alleviate inflationary pressures on the economy over the long run.
What other information not provided in the scenario might have changed your recommendation? Provide an example.	Information on the trends in other key inflation indicators (the core consumer price index (CPI) excluding food and energy; the producers' price index (PPI);and the gross domestic product (GDP) deflator would be useful for policy makers. Additional information on inflation expectations and any changes expected should help policy makers. Information on recent trends in the unemployment rate would help policy makers monitor how much the economy is slowing as they pursue an anti-inflation policy.

Student Handout #3-1

Potential Effects of Monetary Policy

SCENARIO #1:

MAINTAINING THE STATUS QUO

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions,and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

In view of the conflicting evidence on inflation and economic growth provided by recently released economic indicators, your group believes that prospective developments are equally likely to warrant an increase or a decrease in the federal funds rate. For example, the core Consumer Price Index (CPI) remains stable. The core CPI excludes the volatile food and energy components that have been causing the overall CPI index to rise. However, there is uncertainty in the employment situation. Job growth remains positive, an indication that the expansion is continuing, but the unemployment rate also has been rising, an indication of weakness in the economy. The conflicting indicators suggest that the current policy be maintained until evidence exists that the growth rate of the economy has deviated from its target growth path.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	
What are the risks associated with overstimulating the economy?	
What are the risks associated with overtightening monetary policy?	
What other information not provided in the scenario might have changed your recommendation?	

Answer Key

Potential Effects of Monetary Policy

SCENARIO #1:

MAINTAINING THE STATUS QUO

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions,and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

In view of the conflicting evidence on inflation and economic growth provided by recently released economic indicators, your group believes that prospective developments are equally likely to warrant an increase or a decrease in the federal funds rate. For example, the core Consumer Price Index (CPI) remains stable. The core CPI excludes the volatile food and energy components that have been causing the overall CPI index to rise. However, there is uncertainty in the employment situation. Job growth remains positive, an indication that the expansion is continuing, but the unemployment rate also has been rising, an indication of weakness in the economy. The conflicting indicators suggest that the current policy be maintained until evidence exists that the growth rate of the economy has deviated from its target growth path.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Suggested Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	**Maintaining** the federal funds rate at its current level. Until stronger inflation or economic growth trends develop, or both, policy should remain steady. Stimulating the economy at this time could cause it to overheat and increase the potential for future inflation. In contrast, tightening could cause the economy to slow down too much if it is weaker than the indicators presently indicate.
What are the risks associated with overstimulating the economy?	Lowering the federal funds rate will cause other short-term interest rates to fall and will help stimulate investment and the economy in the short run. This would be appropriate if the economy were slowing, but would be inappropriate if it caused the economy to overheat and inflationary pressures to build.
What are the risks associated with overtightening monetary policy?	Raising the federal funds rate will slow investment and the economy in the short run. This would be appropriate if the economy showed signs of overheating and inflationary pressures were building. However, if the economy were already slowing, a higher federal funds rate would tend to weaken it.
What other information not provided in the scenario might have changed your recommendation?	Additional information on monetary policy over the past couple of years could provide important clues on the future behavior of the economy. Current economic forecasts might help policy makers anticipate movements in the economy under different economic scenarios. The composite index of leading economic indicators, published by *The Conference Board*, may provide clues to the economy's behavior over the next several months.

Student Handout #3-2

Potential Effects of Monetary Policy

SCENARIO #2:

MAINTAINING THE STATUS QUO DURING A PERIOD OF RAPID EXPANSION

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions, and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

Your group prefers to maintain the federal funds rate at its present level because of recent information from economic indicators on inflation and economic growth. While the unemployment rate has fallen to its lowest level in decades and labor markets remain tight, the core Consumer Price Index (CPI)—excluding volatile food and energy items—continues to rise at only a modest rate. Investment, especially in high technology, remains strong, and productivity continues to rise at a rapid pace by historic standards. Meanwhile, Real Gross Domestic Product (GDP)—GDP adjusted for inflation—continues to expand rapidly. The behavior of these indicators suggests that the current policy be maintained until evidence exists that either the future inflation rate or GDP has deviated from the target growth path.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	
What are the risks associated with overstimulating the economy?	
What are the risks associated with overtightening monetary policy?	
What other information not provided in the scenario might have changed your recommendation?	

Answer Key

Potential Effects of Monetary Policy

SCENARIO #2:

MAINTAINING THE STATUS QUO DURING A PERIOD OF RAPID EXPANSION

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions, and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

Your group prefers to maintain the federal funds rate at its present level because of recent information from economic indicators on inflation and economic growth. While the unemployment rate has fallen to its lowest level in decades and labor markets remain tight, the core Consumer Price Index (CPI)—excluding volatile food and energy items—continues to rise at only a modest rate. Investment, especially in high technology, remains strong, and productivity continues to rise at a rapid pace by historic standards. Meanwhile, Real Gross Domestic Product (GDP)—GDP adjusted for inflation—continues to expand rapidly. The behavior of these indicators suggests that the current policy be maintained until evidence exists that either the future inflation rate or GDP has deviated from the target growth path.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Suggested Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	**Maintaining** the federal funds rate at its current level. Rapid productivity growth appears to be allowing the economy to expand faster than in prior years without building significant inflationary pressure. Until stronger trends develop in either inflation, or economic growth, or both, policy should remain steady.
What are the risks associated with overstimulating the economy?	Lowering the federal funds rate will cause other short-term interest rates to fall and will help stimulate investment and the economy in the short run. With the economy already at or above full employment, lowering rates would be inappropriate if that caused the economy to overheat and inflationary pressures to build.
What are the risks associated with overtightening monetary policy?	Raising the federal funds rate will slow investment and the economy in the short run. While the economy already is at or above full employment, there is little evidence of rising inflation. Strong productivity growth appears to be allowing the economy to expand at a faster pace than normal without building significant upward pressure on wages and prices. Slowing the economy would not be necessary at this time.
What other information not provided in the scenario might have changed your recommendation?	Additional information on monetary policy over the past couple of years could provide important clues to its future behavior. Information on trends in investment spending and productivity may provide clues to future productivity growth rates. Information on the direction of fiscal policy, whether it is stimulating the economy with a budget deficit or slowing it with a budget surplus, also might be useful for policy makers.

Student Handout #3-3

Potential Effects of Monetary Policy

SCENARIO #3:

A SLOWING ECONOMY

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions,and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

Investment in capital equipment,including high-tech computers, networks, and equipment used to manufacture consumer goods, continues to decline. Lower corporate profits and an uncertain business outlook have contributed to a sharp decline in the stock market and are expected to reduce spending on high-tech equipment this year and next. In addition,slower economic growth for our major trading partners (Canada, Mexico, Asia, and Europe) is expected to limit demand for U.S. exports over the next year. Weak investment spending, an uncertain business outlook,and slower economic growth abroad lead your group to believe that the risks to the U.S. economy in the near future are weighted mainly toward further slowing in the economy.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	
How might your policy recommendation affect short-ter m lending rates (interest rates on other securities maturing in one year or less)?	
What impact is your policy likely to have on the level of employment over the next six months to a year?	
What other information not provided in the scenario might have changed your recommendation? Provide two examples.	

Answer Key

Potential Effects of Monetary Policy

SCENARIO #3:

A SLOWING ECONOMY

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions,and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

Investment in capital equipment, including high-tech computers,networks,and equipment used to manufacture consumer goods, continues to decline. Lower corporate profits and an uncertain business outlook have contributed to a sharp decline in the stock market and are expected to reduce spending on high-tech equipment this year and next. In addition,slower economic growth for our major trading partners (Canada,Mexico, Asia, and Europe) is expected to limit demand for U.S. exports over the next year. Weak investment spending,an uncertain business outlook, and slower economic growth abroad lead your group to believe that the risks to the U.S. economy in the near future are weighted mainly toward further slowing in the economy.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Suggested Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	**Lowering** the federal funds rate should help stimulate the U.S. economy in the months ahead.Lower short-term interest rates should help to offset the weakness in domestic investment spending and the weak export sales caused by slower economic growth abroad. Furthermore, the stock markets typically, but not always, respond positively to lower interest rates.
How might your policy recommendation affect short-term lending rates (interest rates on other securities maturing in one year or less)?	The federal funds rate is a short-term interest rate; interbank loans are usually made on an overnight basis. Lowering the federal funds rate will lower the cost of borrowing in other short-term financial markets,such as Treasury bills and commercial paper (corporate IOUs).
What impact is your policy likely to have on the level of employment over the next six months to a year?	A lower federal funds rate (more relaxed monetary policy) will tend to boost economic growth as measured by Gross Domestic Product (GDP) and employment growth in the short run.
What other information not provided in the scenario might have changed your recommendation? Provide two examples.	Information on the expected severity and duration of the investment slowdown and export slump would help U.S. policy makers make a decision on interest rates that is consistent with economic growth and modest inflation. Statistics on sales,new orders,and inventories of semiconductors, personal computers, and communications devices would be helpful in analyzing the downturn in high tech. Likewise, additional information on the weakness in the economies of our major export markets (Canada, Mexico, Asia, and Europe) would help policy makers estimate the expected size of the downturn in U.S. exports.

Student Handout #3-4

Potential Effects of Monetary Policy

SCENARIO #4:

A GLOBAL ECONOMIC SHOCK

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions,and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

Increased turbulence in foreign financial markets, highlighted by significant exchange rate devaluations, a widespread currency crisis, and potential defaults on international debts held by foreign nations have caused foreign stock markets to collapse and weakened foreign economies.As a result, financial market conditions are tighter in the United States.Simultaneously, the U.S. economy also has been showing signs of growing more slowly.Your group should decide the following: First,whether the weakness in the global economy and financial markets would warrant a change in the federal funds rate, and, second, if that change should be a small adjustment or an aggressive one.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	
How might your policy recommendation affect short-term lending rates (interest rates on other securities maturing in one year or less)?	
What effect is your policy likely to have on the level of employment in the short-term?	
What other information not provided in the scenario might have changed your recommendation? Provide two examples.	

Answer Key

Potential Effects of Monetary Policy

SCENARIO #4:

A GLOBAL ECONOMIC SHOCK

INSTRUCTIONS:

Read and discuss the following monetary policy scenario within your group. Provide short answers to the corresponding questions, and be ready to summarize your answers for the rest of the class.

SETTING THE SCENE:

Increased turbulence in foreign financial markets, highlighted by significant exchange rate devaluations, a widespread currency crisis,and potential defaults on international debts held by foreign nations have caused foreign stock markets to collapse and weakened foreign economies.As a result, financial market conditions are tighter in the United States.Simultaneously, the U.S. economy also has been showing signs of growing more slowly.Your group should decide the following: First, whether the weakness in the global economy and financial markets would warrant a change in the federal funds rate, and, second, if that change should be a small adjustment or an aggressive one.

Members of your group represent an important faction on the FOMC. Your group's recommendation is likely to convince the other FOMC members which way to vote.

Questions	*Suggested Answers*
Does your group recommend raising or lowering the federal funds rate, or maintaining it at its current level?	Lowering the federal funds rate should help stimulate the U.S economy in the months ahead.Lower rates would work to offset the weakness in the economy that is developing domestically. Lower rates also may help to counteract the negative effects of uncertainty in world financial markets.A more significant crisis would likely require a larger policy response.
How might your policy recommendation affect short-term lending rates (interest rates on other securities maturing in one year or less)?	The federal funds rate is a short-term interest rate; loans are usually made on an overnight basis to other banks and financial institutions. Lowering the federal funds rate will lower the cost of borrowing in other short-term financial markets,such as Treasury bills and commercial paper (corporate IOUs).
What effect is your policy likely to have on the level of employment in the short-term?	A lower federal funds rate (more relaxed monetary policy) will tend to boost economic growth and employment growth in the short run.
What other information not provided in the scenario might have changed your recommendation? Provide two examples.	Information on international financial rescue efforts; for example, those lead by the International Monetary Fund (IMF) would provide a sense of the magnitude of the problem. Information on the expected severity and duration of the currency crises also would help analysts evaluate the potential impact on the U.S. economy. It would be important to know whether our trading partners are suffering from financial problems (for example, Canada, Mexico, Asia, and Europe). Information on the expected severity and duration of the financial shock abroad also would help U.S. policy makers make a decision on interest rate that is consistent with economic growth and modest inflation.

LESSON FIVE:

THE FED IS PROTECTING YOUR MONEY

LESSON OVERVIEW:

"The Fed plays a vital role in the nation's payments system." So begins the section on financial services in *The Fed Today* video. Students already learned from the video how the Federal Reserve keeps the money and banking system running smoothly. Lesson Five opens with a brief review of what money is,followed by an examination of the various forms of payment that exist in today's economy. Students will discuss these and discover how changing technologies have resulted in new ways for consumers and businesses to pay for goods and services. Students will conduct a survey to determine which payment methods people use today and they will conclude that consumers often have choices about which types of payment methods to use. Learning about the advantages and disadvantages of cash, checks,and electronic payments can help students make informed choices.

STUDENT OBJECTIVES:

Students will:

- Identify the three functions of money.
- List the most common forms of payment used in today's economy.
- Survey adults to examine payment system trends in their communities.
- Discuss the risks and benefits of cash, checks, and electronic money.

TIME NEEDED:

One-two 50-minute class periods

MATERIALS:

- Classroom Visual #1: *Common Forms of Payment—Advantages and Disadvantages*
- Student Handout #1 *Functions of Money and Forms of Payment* and
  Student Handout #2: *Student Survey of Consumer Payment Methods*
- Access to the FED101 website: http://www.kc.frb.org/fed101/services/ to learn more about electronic payments, the life of a one-dollar bill, and where a check goes.Additional on-line activities available. (Optional)

TEACHER PREPARATION:

1. Review content of class visuals and handouts.
2. Prepare copies of Student Handout #1: *Functions of Money and Forms of Payment* and group sets of Student Handout #2: *Student Survey of Consumer Payment Methods.*
3. Items to lay out for the class: a dollar bill, a check,a credit card,and a piece of gold or silver jewelry.
4. Review FED101 website at http://www.kc.frb.org/fed101/services/ to learn more about electronic payments,the life of a one-dollar bill, and where a check goes.Additional on-line activities available. (Optional)

ACTIVITY:

The Fed Is Protecting Your Money

PROCEDURES:

1. Write on the board, "Who is protecting your money?" Begin the lesson by asking students who they think is protecting their money. Discuss responses and explain that it is the Fed who is protecting money to see that the payments system is safe and reliable. Ask students to recall *The Fed Today* video and think of some of the services that ensure that the payments system is operating smoothly. (Examples: cash processing, check processing, and electronic funds transfers.)
2. Ask students how they make payments to businesses, consumers, and government. Place a dollar bill, a check, a credit card, and a piece of gold or silver jewelry in front of the class. Ask students which of these items is considered to be money.
3. Project an overhead slide of Student Handout #1: *Functions of Money and Forms of Payment.* Discuss the three functions of money. Ask students why tobacco leaves used during the Colonial Era do not fulfill the three functions of money today. (Tobacco spoils, which makes it a bad store of value.) Ask students why gold bricks do not fulfill the three functions of money today. (Carrying gold bricks is difficult, making gold an impractical medium of exchange.) Ask students why a cow does not fulfill the three functions of money today. (Dividing a cow is messy, which makes it a poor unit of measure.) Explain to students that although tobacco, gold bricks, and cows have been used as forms of exchange in the past, none of them fulfills all three functions of money as well as the current forms of money.
4. Ask students to apply the same criteria to the items placed in the front of the class at the beginning of the lesson. The discussion that follows should be quite lively. For example, because a credit card does not serve as a store of value, it does not fulfill the three functions of money. In fact, only the one-dollar bill fulfills the three functions of money.
5. Covering up the "Forms of Payment" section of the slide, ask students to name some of the different forms of payment used in today's economy. Your list may include but is not limited to the following:
    1. cash
    2. coin
    3. check
    4. credit card
    5. debit card
    6. direct deposit
    7. direct payment
    8. money order
    9. Internet payment
    10. barter (Yes, barter is still used informally.)

    Finally, distribute Student Handout #1: *Functions of Money and Forms of Payment.*
6. Have students choose a partner and distribute Student Handout #2: *Student Survey of Consumer Payment Methods.* Instruct pairs of students to ask ten adults how they make payments for various goods and services such as groceries, car payments, rent/mortgage, or utilities. Students should record responses on the form. Provide students with adequate time to gather the appropriate information.
7. When students groups have gathered the necessary information, discuss the payment trends that the students see in their community. Ask the students what types of payment mechanisms are commonly used. For example, are people using cash, checks, and electronic payments equally? If not, ask for opinions and thoughts about why that's not the case.
8. Ask students which form of payment is most commonly used in today's economy: cash, checks, or electronic payments. Ask them which form of payment accounts for the most value (the largest amount of money exchanged). Remind students that they have choices about how to make payments in our economy. Ask students about the advantages and disadvantages of using cash, checks, and electronic payments.

9. Display the top graph on Classroom Visual #1: *Forms of Payment—Advantages and Disadvantages.* Ask students to interpret the graph by having them differentiate between volume and value. Emphasize that although cash is used more often, it accounts for a small percentage of the total dollar value of U.S. payments, while electronic payments account for the largest value of U.S. payments. This explains the two upside-down triangles in the diagram.
10. Explain to students that one of the Fed's responsibilities is keeping the U.S. payments system safe and reliable. It does this by providing high quality coin and currency to banks, processing over one-third of the nation's checks, and providing direct payment and electronic funds transfers to financial institutions.
11. Ask students to speculate on reasons why people prefer one payment method to another. What are the advantages and disadvantages to a consumer of one method over another? (The people whom they interviewed might have expressed opinions on this.) Students should understand that what could be a disadvantage to a merchant (e.g., accepting a check) could be an advantage to a consumer who wrote a check instead of paying cash or using a credit card. Compare student responses with the suggested answers on Classroom Visual #1: *Forms of Payment—Advantages and Disadvantages.*
12. **Teacher Summary:** Remind students that the Federal Reserve is charged with helping to maintain a safe and reliable payments system. One of the ways it does this is by providing financial services to banks. Ask for student participation to summarize the following main points:
    - The three functions of money are **store of value, medium of exchange,** and **unit of measure.**
    - Although there are many different forms of money, cash, checks, and electronic payments are the most common forms of money.
    - Cash is usually the most private and convenient form of payment. However, cash can be risky to carry and awkward to transfer in large amounts.
    - Checks are one of the safest and most popular forms of payment. However, checks can create a risk for merchants and may be less desirable for transferring funds because they can take longer to clear (see check clearing).
    - Electronic payments decrease merchant risk while increasing accessibility to consumers. However, electronic payments often require consumers to have a certain comfort level with technology.

EXTENDING THE LESSON:

Have students visit the FED101 website at http://www.kc.frb.org/fed101/services/ to learn more about electronic payments, the life of a one-dollar bill, and where a check goes. They may also take an on-line quiz. (Optional)

DISCUSSION POINT:

Myth:

Federal Reserve Banks use public tax revenues to fund their operations.

REALITY:

The Federal Reserve System is a self-financing entity not subject to congressional appropriations. Its income is derived primarily from the interest on U.S. government securities acquired through open market operations. The Federal Reserve also collects revenues for services it provides to banks for electronic and check processing. These gross earnings from the System's operations are first dedicated to its operating costs. What remains is all paid over into the Treasury. Over its history, the Fed has paid approximately 95 percent of its earnings to the Treasury. These annual payments are currently running between $20 and $25 billion over the past few years.

Student Handout #1

Functions of Money and Forms of Payment

The Three Functions of Money

Store of Value:

Money functions as a store of value when you can choose not to spend it today but instead buy something with it in the future. However, rising inflation can make money a poor store of value because its purchasing power is reduced over time. Fish were sometimes used as a form of money during Colonial times, but fish didn't function well as a store of value.

Medium of Exchange:

Money functions as a medium of exchange if sellers are willing to accept it in return for goods and services. In the past,however, sellers were willing to barter for goods and services.The problem with barter is what to do when you want to purchase something else after accepting payment.Imagine if you worked at a fast-food restaurant and you were paid only in hamburgers and French fries. It would be extremely difficult to purchase clothing and CDs with cold burgers and stale fries.

Unit of Measure:

Money functions as a unit of measure if it can measure the value of goods and services through the mechanism of prices.

Without pricing,consumers could not compare a used $4,000 clunker with a brand new $40,000 sports car. Although beaver pelts were bartered by many of the American pioneers,they were not a good unit of measure because they came in different sizes with varying degrees of quality.

Ten Common Forms of Payment in Today's Economy

1. cash
2. coin
3. check
4. credit card
5. debit card
6. direct deposit
7. direct payment
8. money order
9. Internet payment
10. barter (Yes,barter is still used informally.)

Student Handout #2

STUDENT SURVEY OF CONSUMER PAYMENT METHODS

Survey of Consumer Payment Methods

Our class at _____ School is conducting this survey as part of our study of the nation's payment system. We want to determine the methods people use to pay for various goods and services.

INTERVIEW #	GROCERIES	ELECTRICITY	RENT/MORTGAGE	PHONE	GAS	CLOTHES
Example:	Cash	Check	Direct Payment	Check	Credit Card	Debit Card
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Classroom Visual #1

COMMON FORMS OF PAYMENT–ADVANTAGES AND DISADVANTAGES

Sources: NACHA,The Nilson Report, ATM & Debit News, CHIPS, Federal Reserve

US PAYMENTS—2000

	VOLUME OF TRANSACTIONS		VALUE OF TRANSACTIONS	
ELECTRONIC TRANSACTIONS	7.4%	49.5 BILLION	88.9%	$695 TRILLION
CHECK TRANSACTIONS	10.3%	69 BILLION	10.9%	$85 TRILLION
CASH TRANSACTIONS	82.3%	550 BILLION	0.3%	$2.2 TRILLION

SUGGESTED ANSWERS:

PAYMENT TYPE	ADVANTAGES	DISADVANTAGES
CASH	• Provides privacy • Provides convenience • Accepted universally	• Risk of loss and theft • Transferring over long distances is difficult • Transferring large amounts is difficult
CHECKS	• Provides safety and convenience • Serves as legal proof of purchase • Allows for more payment control	• Assigns risk to merchant • Access to funds may be delayed • Processing costs increase
ELECTRONIC PAYMENTS	• Decreases merchant risk • Provides 24-hour access • Reduces processing costs • Saves paper	• Compromises privacy • Can require knowledge of technology • Reduces payment control

THE FED TODAY

History, Structure, Monetary Policy, Banking Supervision, Financial Services, and More!

LESSON SIX:

THE FED-HELPING KEEP BANKS SAFE AND SOUND

LESSON OVERVIEW:

Students will recall from the historical section of *The Fed Today* video how bank panics in the past threatened the entire banking system and the health of the United States economy. This lesson focuses on why banks have to be supervised and regulated in order to avoid the bank runs and financial instability of the past. Students will discuss how banks are in business to make money by offering customers a range of products. They will discover also that banks have a responsibility to customers and to the community at large to operate in a sound manner. The Federal Reserve has a supervisory role along with other state and federal regulators to keep banks safe and sound.

In this lesson students will review the products that banks provide to consumers and learn how banks make a profit. Students will also play the role of a bank examiner and evaluate a six-month-old loan made to the hypothetical owner of a mystery bookstore.

Students use a bank examiner's tool known as the "Five-Cs" (capital, capacity, collateral, condition, and character) to evaluate and grade the loan.

STUDENT OBJECTIVES:

Students will:

- List at least three ways a bank attempts to earn a profit.
- Describe why unhealthy banks can create a risk to the financial system.
- Identify methods used to evaluate the stability of a bank.
- Be able to explain why banks must be responsible to consumers and the community.
- Demonstrate how a bank examiner reviews an existing loan by using a tool called the 5-Cs.

TIME NEEDED:

One-two 50-minute class period

MATERIALS:

- Classroom Visual: *The Business of Banking*
- Student Handout: *Examining a Virtual Bank* (based on a web-based activity at http://www.kc.frb.org/fed101/supervision/bankexam.cfm/)
- Access to the FED101 website: http://www.kc.frb.org/fed101/supervision/ to learn more about bank supervision and regulation and consumer protection legislation. On-line quiz available. (Optional)

TEACHER PREPARATION:

1. Review Classroom Visual: *The Business of Banking*.
2. Review Student Handout: *Examining a Virtual Bank* (based on an existing web-based activity at http://www.kc.frb.org/fed101/supervision/bankexam.cfm/).
3. Review the FED101 website: http://www.kc.frb.org/fed101/supervision/ to learn more about bank supervision and regulation and consumer protection legislation, and take an on-line quiz.

ACTIVITY:

Understanding the Fed's Role in the U.S. Economy

PROCEDURES:

1. Explain that a safe and sound banking industry is essential for a healthy economy. Ask students to recall the history section of *The Fed Today* video when the U.S. was plagued by financial instability. Explain to students that many of the money and banking problems in the 1800s occurred because of insufficient supervision and regulation of the banking industry.
2. Project Classroom Visual: *The Business of Banking.* (As the teacher explains each section, remaining sections on the overhead slide should be covered up.)
3. Ask students how banks make money and about the kinds of products they offer to consumers (for example, savings and checking accounts, business and residential loans, and credit card loans). Ask students to identify some of the other ways banks make money (by charging fees on ATM transactions, making commissions on stock purchases, and selling other financial products).
4. Ask students what they think the term "safe and sound" means when used in the context of bank regulation. Ask what they think bank examiners look for when they examine a bank. Explain that a bank's financial condition depends on the quality of its **C**apital, **A**ssets, **M**anagement, **E**arnings, **L**iquidity, and **S**ensitivity to risk (a rating system called "CAMELS").
5. Ask students what kind of responsibility banks have to consumers and the community (to provide clear information about services and lending products, and equal and fair access to credit to all individuals and all segments of the community).
6. Divide students into five groups, providing each group with Student Handout: *Examining a Virtual Bank* (based on an existing web-based activity at http://www.kc.frb.org/fed101/supervision/bankexam.cfm/). Explain that one of the bank examiner's duties is to identify potential risks to a bank. One type of risk is a bad loan, or a loan that is unlikely to be repaid by a borrower.
7. Discuss the examination tool called the "5-Cs" on the Student Handout: *Examining a Virtual Bank.* Go over the financial scenario with the students, checking for understanding along the way. Each group should analyze the loan using the 5-Cs just as a bank examiner would. For each "C" they should rate the loan good, adequate, or poor.
8. Ask members of each group to vote on whether they think this loan can be rated as pass, sub-standard, doubtful, or loss. Poll each student group for its recommendation. Share the information from the Student Handout Answer Key with the class. Emphasize that in a real bank examination there would be many more loans to rate and other duties to perform, such as gathering financial information and checking for compliance with consumer protection laws.
9. **Teacher Summary:** Explain to students that along with other state and federal agencies, the Federal Reserve plays an important role in supervising and regulating banks. Ask for student participation to summarize the following main points:
   - Bank regulation is important in maintaining safety and soundness of the banking system. An unhealthy banking system is a barrier to a healthy economy.
   - Bank examiners review two areas of a bank's operations: financial condition and compliance with bank regulations.
   - Banks have a responsibility to provide consumers and communities with clear information about lending terms and equal access to credit regardless of race, religion, or income level.

EXTENDING THE LESSON:

Have students visit the FED101 website at: http://www.kc.frb.org/fed101/supervision/ to learn more about bank supervision and regulation and consumer protection legislation, and take an on-line quiz.

DISCUSSION POINT:

Myth:

The Fed is not a good supervisor of banks because it allows banks to keep only a fraction of their deposits on hand.

REALITY:

The fact that banks are required to keep on hand only a fraction of the funds deposited with them is a function of the banking business. Banks borrow funds from their depositors (those with savings) and in turn lend those funds to the banks' borrowers (those in need of funds). Banks make money by charging borrowers more for a loan (a higher percentage interest rate) than is paid to depositors for use of their money. If banks did not lend out their available funds after meeting their reserve requirements, depositors might have to pay banks to provide safekeeping services for their money.

For the economy and banking system as a whole, the practice of keeping only a fraction of deposits on hand has an important cumulative effect. Referred to as the fractional reserve system, it permits the banking system to "create" money.

Classroom Visual

THE BUSINESS OF BANKING

Banks Are Businesses

- When customers deposit money in a bank account, they have a safe place to store their money and may receive interest on their deposit.
- Banks are only required to keep a percentage of deposits on reserve as cash. They lend the rest to qualified borrowers.
- Borrowers who wish to buy a house or a new car are charged interest on their loans. That interest is the banks' primary source of income.
- Banks also make money from charging fees for other financial services, such as debit cards, automated teller machine (ATM) usage, and checking accounts.

Safe and Sound Banks

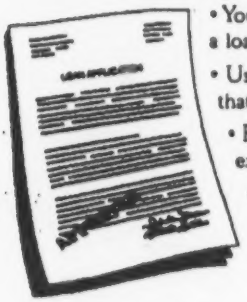
- Many of the money and banking problems that occurred during the 1800s arose because of insufficient supervision and regulation of the banking industry.
- Federal Reserve Bank examiners, along with other state and federal regulators, review banks' regularly submitted financial reports and conduct on-site bank examinations.
- Banks are rated based on their financial condition and how well they comply with banking regulations.
- A bank's rating depends on the quality of its Capital, Assets, Management, Earnings, Liquidity, and Sensitivity to risk (a rating system called "CAMELS").

Banks Have a Responsibility to Consumers and Communities

- Banks are required to provide accurate information about their services. For example, information about terms, interest rates, and fees must be made clearly available to borrowers.
- Banks are required to provide equal access to credit regardless of race, sex, or religion.
- Banks are required to meet the needs of entire communities, including low-to-moderate-income areas.

Student Handout

EXAMINING A VIRTUAL BANK



- You are an examiner on the team at ABC Bank, and you have been assigned to review a loan, which is a standard step in a bank examination.
- Using the 5-Cs, analyze the quality of the loan and the borrower, and the likelihood that the loan will be paid back.
- For each "C," rate the loan Good, Adequate, or Poor. You will learn about the experts' rating after your selection.
- After rating the 5-Cs, classify the loan as Pass, Substandard, Doubtful, or Loss.

THE 5-CS

Capacity:	Capacity measures the borrower's ability to pay, including the borrower's payment source, such as a job, or profits from a business, and amount of income relative to amount of debt.
Collateral:	Collateral helps determine a bank's options if the loan is not repaid. What asset is pledged as collateral? What is its market value? Can it be sold easily? A valuable asset could include a house or a car.
Condition:	Condition refers to the borrower's circumstances. For example, if a furniture store owner asked for a loan, the banker would be interested in how many chairs and sofas he or she expected to sell over the next few years.
Capital:	Capital consists of the applicant's assets (house, car, savings) minus liabilities (home mortgage, credit card balance). If applicants have more liabilities than assets, they could have difficulty repaying their loans if their regular sources of income unexpectedly decreased.
Character:	Character measures the borrower's willingness to pay. This is gauged by reviewing the borrower's payment history, credit report, and information from other lenders.

LOAN INFORMATION

Judy Jepson, Bookstore Owner

	Purpose and Terms of the Loan
Purpose & Terms *Appraised Value* *Payment History* *Monthly Revenue* *Financial Statement*	To open a mystery bookstore in a suburban mall. Mystery books have caught the eye of young and old readers in the area. Jepson's market research suggests a mall store can sell $50,000 worth of books per month. The loan proceeds were used for a new store layout and books. Initial costs were $100,000. Jepson was given a loan of $75,000. She paid the rest out of her savings account. At 12 percent fixed interest rate for five years, monthly loan payments are $1,668 per month and will be made from the profits of the bookstore.

BEST COPY AVAILABLE

Student Handout

EXAMINING A VIRTUAL BANK

Monthly Revenue (earnings) and Costs as of July 1: (6 months after loan was made)
Sales Revenue: $50,000
Costs:
Rent: $5,000 Books/materials:$25,000 Wages for employees:$15,000

Personal Financial Statement as of July 1: (6 months after loan was made)
Assets:
Bookstore: $110,000 Savings: $30,000 Car: $10,000 House: $50,000

Liabilities:
Bookstore: $68,000 Credit Card:$4,000 Car: $6,000 House: $40,000

Personal Debt: (Monthly payments)
Bookstore: $1,668 Home Mortgage: $1,000 Car Loan: $500 Credit Card:$100

Payment History:
The loan was made on January 1.
As of July 1, Judy is paying the loan as agreed.
February and March were slow for the bookstore, and Judy was late making these payment

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Appraised Value:
The bank received a certified appraisal on the bookstore, including its business assets and contents.
The appraised value was $110,000.

Answer Key

EXAMINING A VIRTUAL BANK

FINAL REVIEW:

Overall, the experts rate this loan as a passing loan.

CAPITAL:

The experts chose "good!"

Judy's net worth equals her assets of $200,000 minus her liabilities of $118,000. Net worth is $82,000. The repayment source for the loan is the income from the bookstore, which can be irregular. However, Judy has a consistent payment history.

CAPACITY:

The experts chose "adequate!"

Judy's capacity to pay the loan is pretty tight. Total monthly income equals $5,000. Total monthly debt equals $3,268. The winter months are very slow for the bookstore.

CONDITION:

The experts chose "adequate!"

The bookstore seems to be making money except during the slow winter months, but it appears that other months compensate for those.

COLLATERAL:

The experts chose "good!"

The loan-to-value ratio is good at $75,000/$110,000 = 68%. However, should the bank need to liquidate the assets to cover the loan, the assets of the bookstore are specialized and are not considered very marketable. This, of course, would be the worst-case scenario.

CHARACTER:

The experts chose "good!"

Judy seems willing to work and to keep the business running. Even though February and March were difficult months, Judy pulled through with her payments and got herself current again.

Appendix I

Federal Reserve System Map

Appendix II

GLOSSARY OF TERMS

assets—For an individual assets might include real assets, like a house or a car, or financial assets, like stocks or bonds. A bank's assets would include the loans it has made, the securities it holds,and other assets.

automated clearinghouse (ACH)—The Fed's electronic clearing and settlement system for exchanging electronic transactions among participating banks.These transactions are usually substitutes for recurring payments, such as payroll or loan payments.

Bank Holiday of 1933—A bank holiday was declared by President Franklin D. Roosevelt.All banks in the United States were closed following a series of bank panics that occurred during the Great Depression.

bank regulation—Actions to make, issue, and enforce specific rules and regulations governing the structure and conduct of banking under the authority of legislation.

bank supervision—Oversight of individual banks to ensure that they are operated prudently and in accordance with applicable statutes

bank examination—A periodic review where regulators visit a bank to check its compliance with regulations and review the safety and soundness of the bank.

barter—The direct exchange of goods and services for other goods and services without money.

Board of Governors of the Federal Reserve—Central,governmental agency of the Federal Reserve System,located in Washington, D.C., and composed of seven members,who are appointed by the President and confirmed by the Senate.

Bureau of Engraving and Printing (BEP)—The BEP produces Federal Reserve Notes and other security documents for the United States Treasury. It is an agency of the Treasury Department.

CAMELS—A rating system used by bank examiners to determine a bank's financial condition. Each letter stands for one of the six components of a bank's condition, including capital,assets, management, earnings, liquidity, and sensitivity to risk.

capacity—Measurement of the borrower's ability to pay, including the borrower's payment source, such as a job, or profits from a business,and amount of income relative to amount of debt.

capital—For banks and savings and loans, the funds that are invested in the bank by stockholders (as opposed to funds deposited by depositors).

central bank—Principal monetary authority of a nation,which performs several key functions, including issuing currency and regulating the supply of credit in the economy.The Federal Reserve is the central bank of the United States.

character—Character measures the borrower's willingness to pay.This is gauged by reviewing the borrower's payment history, credit report, and information from other lenders.

check clearing—The movement of a check from the institution at which it was deposited back to the institution on which it was written,and the corresponding credit and debit to the accounts involved.

collateral—Collateral helps determine a bank's options if the loan is not repaid.What asset is pledged as collateral? What is its market value? Can it be sold easily? A valuable asset could include a house or a car.

commercial paper—Short-term, unsecured promissory note issued by a commercial firm, a financial company, or a foreign government.

condition—Condition refers to the borrower's circumstances. For example, if a storeowner asked for a loan, the banker would be interested in expected sales over the period of the loan.

Consumer Price Index (CPI)—An indicator used to calculate the price level for consumer goods purchased by a typical urban family. The CPI is used to calculate the percentage changes in the average level of prices for a basket of goods and services.

Continental Currency—The currency authorized by the Continental Congress to help finance the American Revolution against England.

Core Consumer Price Index (core CPI)—A version of the CPI that excludes the volatile food and energy components of the CPI.

corporate bond—A long-term obligation of a corporation.

credit—The promise to pay in the future in order to buy or borrow in the present. The right to defer payment of debt.

currency devaluation—A deliberate downward adjustment in the official exchange rate established, or pegged, by a government against a specified standard, such as another currency or gold.

debit card—A card that resembles a credit card but which debits a transaction account (checking account) with the transfers occurring at the same time as the customer's purchases. A debit card may be machine readable, allowing for the activation of an automated teller machine or other automated payments equipment.

default—Failure of a borrower to meet the terms of a loan or credit agreement.

demand deposit—A deposit that may be withdrawn at any time without prior written notice to the depository institution.

depository institution—Financial institution that obtains its funds mainly through deposits from the public; this includes commercial banks, savings and loan associations, savings banks, and credit unions.

devaluation—See *currency devaluation.*

discount rate—Interest rate at which an eligible depository institution may borrow funds, typically for a short period, directly from a Federal Reserve Bank. The law requires that the board of directors of each Reserve Bank establish the discount rate every fourteen days subject to the approval of the Board of Governors of the Federal Reserve.

disinflation—A fall in the price level; the opposite of inflation.

earnings—Net income.

economic forecast—A prediction of future economic trends of key economic indicators.

economic growth—A measure of the annual change in the amount of goods and services produced (output), usually defined as the annual percentage change in real Gross Domestic Product (GDP).

electronic payments—Payments completed by the transfer of funds electronically rather than by check or cash.

excess reserves—Amount of reserves held by an institution in excess of its reserve requirement and required clearing balance.

federal deficit—A condition that occurs when the federal government spends more than it receives in revenues.

federal funds rate—Rate charged by a bank on an overnight sale of federal funds to another bank.

Federal Open Market Committee (FOMC)—Twelve-member committee made up of the seven members of the Board of Governors; the president of the Federal Reserve Bank of New York; and, on a rotating basis, the presidents of four other Reserve Banks. The FOMC meets eight times a year to set Federal Reserve guidelines regarding the purchase and sale of government securities in the open market as a means of influencing the volume of bank credit and money in the economy.

Federal Reserve Act of 1913—Federal legislation that established the Federal Reserve System.

Federal Reserve Bank—One of the 12 operating arms of the Federal Reserve System, located throughout the nation, that together with their 25 Branches carry out various System functions, including operating a nationwide payments system, distributing the nation's currency and coin, supervising and regulating banks, analyzing economic conditions, and serving as banker for the U.S. Treasury.

Federal Reserve Banks' Boards of Directors—Groups of nine directors—chosen from outside each Reserve Bank—who provide the Federal Reserve System with a wealth of information on economic conditions in key industries and regions.

Federal Reserve Note—Currency issued by the Federal Reserve, but printed by the Bureau of Engraving and Printing. Federal Reserve Notes account for nearly all the nation's circulating currency.

Federal Reserve System—The central bank of the United States, created by Congress and made up of a seven-member Board of Governors in Washington, D.C., 12 regional Federal Reserve Banks,and their 25 Branches.

Fedwire—Electronic funds transfer network operated by the Federal Reserve. Fedwire is usually used to transfer large amounts of funds and U.S. government securities from one bank's account at the Federal Reserve to another bank's account.

fee income—Income earned from selling services for a fee.

fiat money—Money that has little or no intrinsic value as a commodity; it is costless to produce, usually taking the form of tokens or pieces of paper, and is not redeemable for any commodity.

financial shock—Events in financial markets that impact the economy. Shocks are unexpected and unpredictable (e.g.,1987 Stock Market Crash, 1997 Asian Financial Crisis).

First Bank of the United States—Created by Congress in 1791 and headquartered in Philadelphia, had branches in other major cities and it performed the basic banking function of accepting deposits and issuing bank notes,of making loans, and of purchasing securities. It was the largest corporation in the country and was dominated by big banking and money interests.By 1811 when the bank's 20-year charter expired, Congress refused, by one vote, to renew it.

fiscal agent—The Federal Reserve Banks act as the fiscal agent for the U.S.Treasury, providing services that include maintaining deposit accounts for the Treasury Department, paying U.S. government checks drawn on the Treasury, and issuing and redeeming savings bonds and other government securities.

fiscal policy—The federal government's decisions about the amount of money it spends and collects in taxes to achieve a full employment and non-inflationary economy.

five-Cs—A tool used by bank examiners to evaluate and grade a loan. See also *character, capacity, condition, collateral, and capital.*

foreign exchange rate—Price of the currency of one nation in terms of the currency of another nation.

Free Banking Era—A period from 1836 to 1863 when the American banking system consisted primarily of state-chartered banks with no federal regulation. State bank and privately issued paper money varied tremendously in shape and design.

full employment—The lowest level of unemployment of the civilian labor force.

Full Employment and Balanced Growth Act of 1978 (Humphrey-Hawkins Act)—Federal legislation that, among other things,specifies the primary objectives of U.S. economic policy—maximum employment, stable prices, and moderate long-term interest rates.

GDP deflator—A measure of the rate of inflation based on GDP statistics. This index measures the average price level based on GDP.

Glass-Steagall Act of 1933—The law that called for the separation of commercial and investment banking.

gold standard—A monetary system in which currencies are defined in terms of a given weight of gold.

government securities—Securities, such as bills,notes, and bonds issued by the U.S.Treasury or federal agencies.

Gramm-Leach-Bliley Act of 1999—The Financial Services Modernization Act permits affiliation of commercial banking with other financial services firms, including securities firms and insurance companies through a new financial holding company (FHC) structure.

gross domestic product (GDP)—Total value of goods and services (output) produced in the United States during a specific period. See also *nominal GDP, real GDP, and GDP deflator.*

inflation—A rise in the general level of prices over a sustained period of time. (This should not be confused with increases in the prices of specific goods relative to the prices of other goods.)

inflation expectations—The rate of increase in the general price level anticipated by the public in the period ahead.

interest—The money a borrower pays (a lender charges) for the use of money over a period of time.

interest rates—Rates of interest paid on deposits and other investments,determined by the interaction of the supply of and demand for funds in the money market.

interest sensitivity—The sensitivity of interest income earned on a portfolio of securities or loans to changes in interest rates.

International Monetary Fund (IMF)—International organization established for lending funds to member nations, usually to finance temporary balance-of-payments deficits.

inventories—Goods that are being held for future sale.

investment—Financial investments refer to purchases of stocks or bonds. Economic investment refers to purchases of real capital goods used to produce other goods or services.

leading economic indicators—A composite index of ten economic indicators that tends to lead upturns and downturns in the overall economy.

liquidity—The ability of a bank or business to meet its current obligations or the quality that makes an asset quickly and readily convertible into cash.

long-term interest rates or bond rates—Interest rates on loan contracts—or debt instruments such as Treasury bonds, agency securities, municipal bonds—having maturities greater than one year. Often called capital market rates.

low-income areas—Median family income is less than 50 percent of an area's median income.

management—Those who direct or manage a firm.

medium of exchange—Something that is willingly accepted as payment for goods or services. See also *store of value* and *unit of measure*.

member bank—Depository institution that is a member of the Federal Reserve System.All federally chartered banks are automatically members of the System;state-chartered banks may elect to join the System.

moderate-income areas—Median family income is at least 50 percent and less than 80 percent of the area median income.

Monetary Control Act of 1980 (MCA)—Requires depository institutions to hold required reserves on deposits.In addition, beginning in September 1981, the Fed charged banks for a range of services that it had previously provided free, including check clearing, wire transfer of funds, and the use of automated clearinghouse facilities.

monetary policy—A central bank's actions to influence the availability and cost of money and credit,as a means of helping to promote national economic goals.Tools of monetary policy include open market operations, discount policy, and reserve requirements.

money—Anything that serves as a generally accepted medium of exchange, unit of measure, and store of value.

mortgage interest rates—The interest rate charged on mortgages.

National Bank Act of 1863—Created a system of national banks that issued currency backed by U.S. government securities,allowing banks to issue the first uniform currency for the nation.

new orders—An economic indicator that measures new orders for durable goods.

nominal GDP—GDP measured in current prices.See *gross domestic product*.

open market operations—Purchases and sales of government and certain other securities in the open market through the Domestic Trading Desk at the Federal Reserve Bank of New York, with the purpose of influencing the volume of money and credit in the economy.

productivity—The amount of physical output for each unit of productive input.

payments system—Collective term for mechanisms (both paper-backed and electronic) for moving funds,payments,and money among banks throughout the nation.The Federal Reserve plays a major role in the nation's payments system through distribution of currency and coin, processing of checks, and the electronic transfer of funds.

personal consumption expenditures—Spending by consumers on goods and services during a time period.

producers' price index—An inflation index that measures prices for several thousand inputs producers use in producing goods and services.

purchasing power—The amount of income you have available to purchase goods and services during a time period.

real GDP—GDP (gross domestic product) that has been adjusted to exclude inflation. Real GDP provides the value of GDP in constant dollars,which is used as an indicator of the volume of the nation's output during a time period.

reserve requirements—Percentage of deposits that depository institutions must keep on reserve in their cash vaults or on deposit at a Federal Reserve Bank.

Second Bank of the United States—In 1816 Congress agreed to charter the Second Bank of the United States. However, the political climate at the time was volatile, and when Andrew Jackson, a central bank foe, was elected president in 1828, he attacked the central bank's banker-controlled power. When the Second Bank's charter expired in 1836,it was not renewed.

short-term interest rates—Interest rates on loan contracts—or debt instruments such as Treasury bills, bank certificates of deposit,or commercial paper—with maturities of less than one year. Often called money market rates.

specie—Coins that were valued for their metalic (gold,silver) content.

state-chartered member banks—A bank that is chartered by a state and has elected to join the Federal Reserve System.

stock—Ownership share of a corporation.

stock market—A market where stocks are traded (i.e., New York Stock Exchange, American Stock Exchange, or NASDAQ).

store of value—A function of money that allows for the transfer of purchasing power from the present to a future time period. See also *medium of exchange* and *unit of measure*.

trading partners—The U.S. exports and imports goods and services to nations that are its trading partners.

unemployment rate—Percentage of the labor force that is unemployed and actively seeking a job.

unit of measure— A function of money that measures the value of goods and services through the mechanism of prices.See also *medium of exchange* and *store of value*.

U.S. Treasury securities—Interest-bearing obligations of the U.S. government issued by the U.S. Department of the Treasury as a means of borrowing money. There are three types of marketable Treasury securities—bills,notes, and bonds.

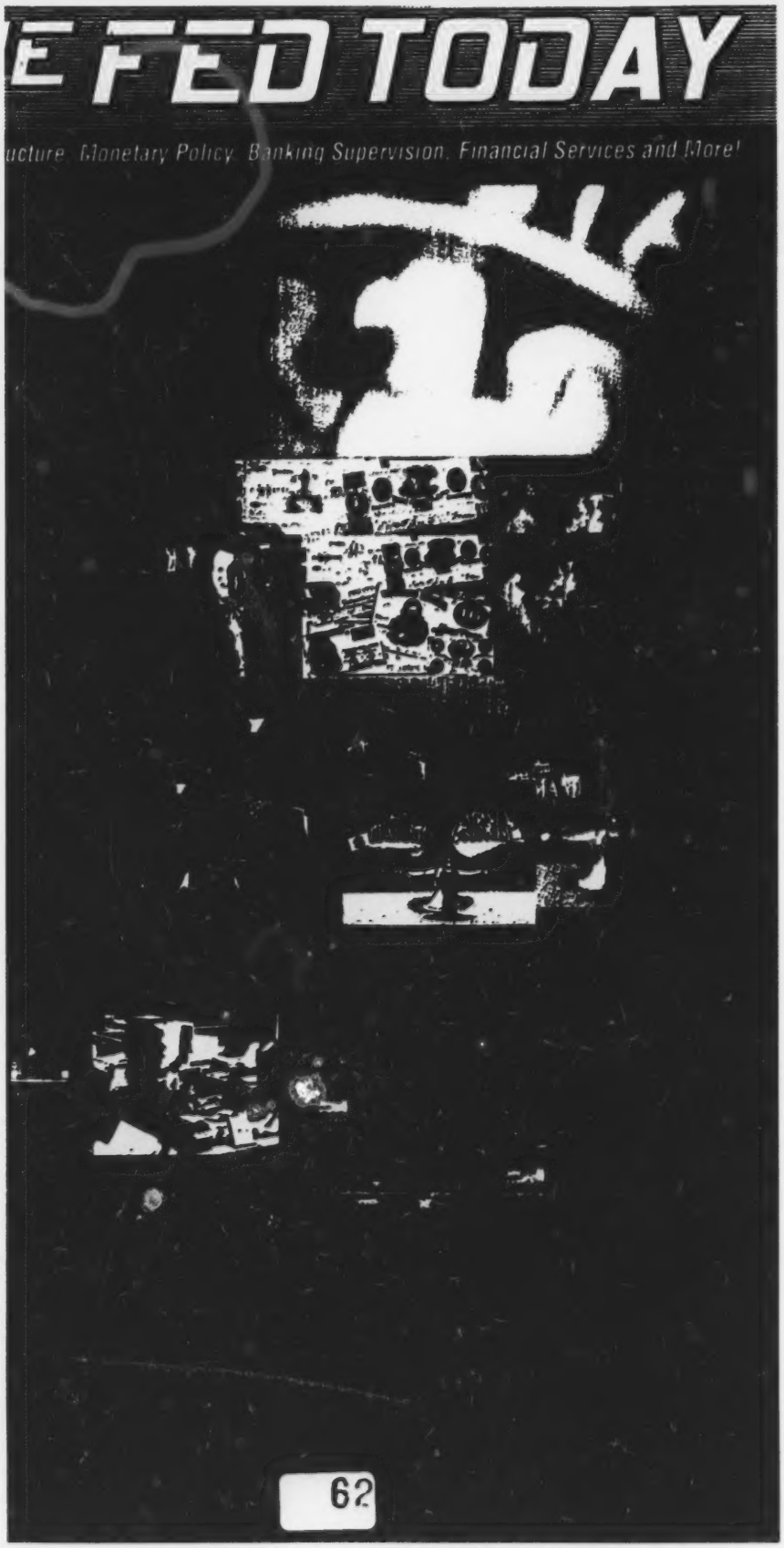
velocity—Rate at which money balances turn over in a period for expenditures on goods and services (often measured as the ratio of GDP—gross domestic product—to the money stock).A larger velocity measure means that a given quantity of money is associated with a greater dollar volume of transactions.

Appendix III

ADDITIONAL FED WEBSITES

For more information on the Federal Reserve System,the economy, and special programs in your District, please visit the following Federal Reserve Bank websites:

	Federal Reserve Economic Education Website	**http://www.FederalReserveEducation.org/**
	Federal Reserve Board of Governors	**http://www.federalreserve.gov/**
1.	Federal Reserve Bank of Boston	**http://www.bos.frb.org/**
2.	Federal Reserve Bank of New York	**http://www.newyorkfed.org/**
3.	Federal Reserve Bank of Philadelphia	**http://www.phil.frb.org/**
4.	Federal Reserve Bank of Cleveland	**http://www.clev.frb.org/**
5.	Federal Reserve Bank of Richmond	**http://www.rich.frb.org/**
6.	Federal Reserve Bank of Atlanta	**http://www.frbatlanta.org/**
7.	Federal Reserve Bank of Chicago	**http://www.chicagofed.org/**
8.	Federal Reserve Bank of St.Louis	**http://www.stls.frb.org/**
9.	Federal Reserve Bank of Minneapolis	**http://www.minneapolisfed.org/**
10.	Federal Reserve Bank of Kansas City	**http://www.kc.frb.org/**
11.	Federal Reserve Bank of Dallas	**http://www.dallasfed.org/**
12.	Federal Reserve Bank of San Francisco	**http://www.frbsf.org/**



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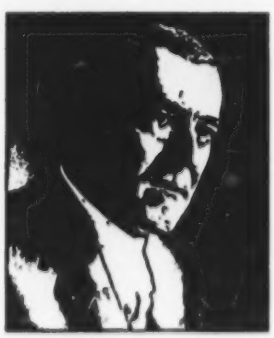
The Fed Today

The Federal Reserve System, or "the Fed" for short, is our nation's central bank. Since its beginnings in 1913, the Fed's main mission has always been to establish and maintain the public's confidence in the monetary and banking system of the United States.

But the confidence that exists today wasn't always there during much of our country's early history. At one time, the nation had more than 30,000 types of currency, which almost any organization—even drugstores—could issue. The confusion was compounded because people could redeem some currencies for gold and silver, while government bonds backed other types of currency. To make matters worse, many banks often didn't have enough money on hand to pay their depositors.

Something had to be done.

The Eccles Building in Washington, D.C., houses the Board of Governors of the Federal Reserve System.



President Woodrow Wilson signed the Federal Reserve Act in December 1913.

History

Congress drafted the Federal Reserve Act in 1913, creating the Federal Reserve System to establish order and confidence in the country's monetary and banking system.

The act had its beginning in 1908, when Congress set up the National Monetary Commission to pinpoint weaknesses in the nation's financial system.

The commission found that the United States lacked a reliable method to provide liquidity to the money supply. The country needed an "elastic currency," which means we needed to be able to increase or decrease the growth of the money supply when necessary.

President Woodrow Wilson signed the Federal Reserve Act into law on Dec. 23, 1913, giving the Fed the responsibility of providing the country with a safer and more flexible financial system.

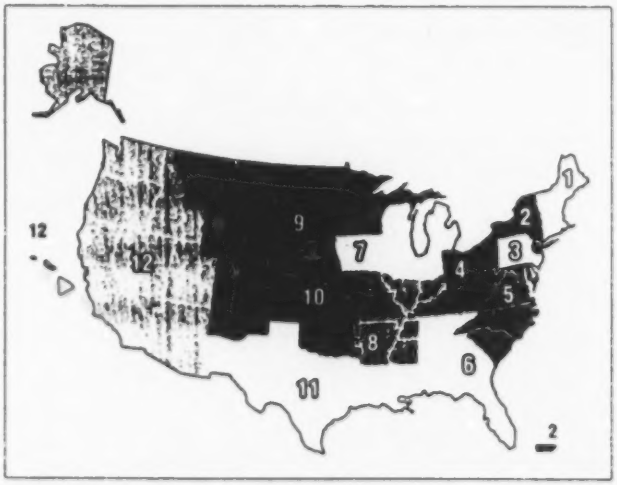
Since the act was signed, the Fed's original mission has expanded to include helping maintain a stable, healthy and growing economy.

Structure

The Fed is a "decentralized central bank"—a distinctively American version of a central bank, with a unique public/private structure. The Fed is governed by a seven-member Board of Governors appointed by the president and confirmed by the Senate. The Board represents the public sector, or governmental side, of the Fed.

The Fed also includes 12 regional Reserve Banks. Each regional Fed has a board of directors consisting of local citizens who represent the private sector. These directors come from all walks of life: bankers, business owners, educators, farmers and other professionals. This decentralized structure provides accountability but avoids centralized governmental control of the country's banking and monetary policy. By working in the communities, economic experts at the Reserve Banks are able to give Fed leaders in Washington regional perspectives that are blended into a national economic picture.

The Fed receives no government funding, paying instead for its activities with interest earned from investments in government securities, loans to banks and charges for services provided to financial institutions.



The 12 Federal Reserve Districts

Each year the Fed generates enough revenue to cover its costs and turns all excess income over to the U.S. Treasury.

The Fed operates independently *within* the government. As in any corporation, the Fed has stockholders. All nationally chartered banks hold stock in the Federal Reserve. State-chartered banks may choose to join the Fed and likewise own stock. Unlike stockholders in a public company, banks cannot sell or trade their Fed stock. They also do not control the Fed; however, they elect six of the nine board members of the Reserve Bank in their district.

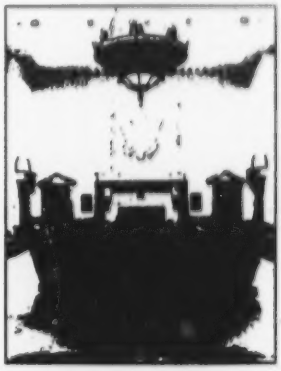
Today's regional Reserve Banks work with the Board of Governors to establish and implement monetary policy and are responsible for supervising banks and bank holding companies. The regional Feds also provide a variety of financial services to banks and other deposit-taking financial institutions.

Monetary Policy

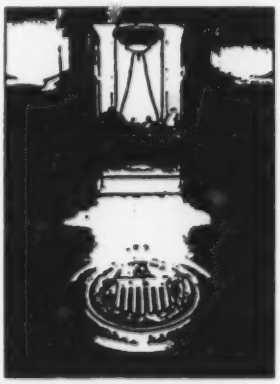
The Fed's foundation rests upon developing and implementing a sound monetary policy whose primary focus is price stability.

The Federal Open Market Committee (FOMC) is the group that establishes monetary policy. The committee comprises the seven governors and the 12 Reserve Bank presidents. The Fed chairman, who reports regularly to Congress, heads the committee. Five of the 12 Reserve Bank presidents have voting authority. The president of the New York Fed is a permanent voting member and serves as the FOMC's vice chairman. The other four votes rotate every year among the other 11 presidents.

The committee makes decisions that affect the amount of available money and credit. For example, if the FOMC sees signs of inflationary pressures that may affect price stability, the committee may move to slow the growth of the money supply.



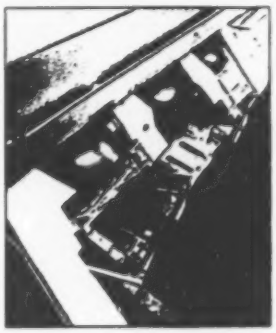
Meeting room of FOMC in Washington, D.C.



As the money supply grows, so does the demand for goods and services. When more money is available, people tend to spend more. However, when the production of goods and services can't keep up with the growth in demand, prices usually begin to rise—that is, *inflation* occurs.

If there is an indication that inflation is threatening purchasing power, the Fed may need to slow the growth of the money supply. It does this by using three tools—the discount rate, the reserve requirement and, most important, open market operations.

Conversely, if the money supply and the demand for goods decrease, people buy less; prices could fall and businesses would produce fewer goods. In this case, we could have an economic slowdown—or, worse, a *recession*.



The Discount Rate

The discount rate is the interest rate the Fed charges financial institutions for short-term loans of reserves. Changing the discount rate can inhibit or encourage a financial institution's lending and investment activities by sending a signal about the Fed's goals and by indirectly influencing the interest rates banks pay depositors and at which they offer loans.

The Reserve Requirement

The reserve requirement is the percentage of checking account deposits that financial institutions must set aside in reserve. If the Fed raises the reserve requirement, banks have less money to lend, which restrains growth of the money supply. If the Fed lowers the reserve requirement, banks have more money to lend and the money supply increases.

The Fed rarely changes the reserve requirement. In fact, it is the least used monetary policy tool because changes in the reserve requirement significantly affect the way financial institutions operate. Reserve requirement changes are seen as a sign that monetary policy has swung strongly in a new direction.

Open Market Operations

The Fed's primary tool for fighting inflation and recession is open market operations. Acting through banks and government securities dealers, the Fed buys and sells U.S. government securities on the open market to influence short-term interest rates and the growth of money and credit.

When the Fed determines that too much money and credit are available in the market and inflationary pressures are rising, the Fed will sell securities to banks and dealers. As a result, banks have less money to loan to the public. With excess money and credit taken out of the financial system, inflationary pressures are reduced, thus stabilizing the economy.

If too little money is available in the financial system, which could lead to an economic slowdown or recession, the Fed buys securities. The funds the Fed uses to purchase the securities will eventually arrive at local banks, which then have more money to lend. This process moves money into the financial system and stabilizes the economy.

Through both the selling and buying of securities, the goal is a stable economy with higher employment and production, steady growth and overall stable prices.

Banking Supervision

Prior to the Fed's creation, the United States had neither a uniform currency nor a way to ensure that banks and other financial institutions stayed solvent. Throughout the 1800s and early 1900s, banks found themselves in precarious situations when many customers showed up on the banks' doorsteps demanding their money.

Today Congress establishes rules that govern the supervision and regulation of banks that operate in the United States.

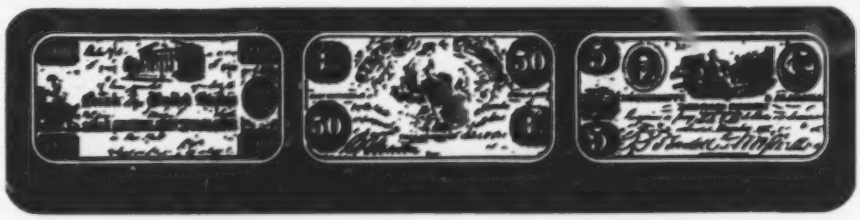
The Fed works with other government agencies to make sure banks follow the rules and laws. This hands-on experience provides the Fed with essential knowledge for setting monetary policy and forestalling or managing financial crises.

The Fed monitors banks, bank holding companies and U.S. operations of foreign banks to ensure their safety and soundness so that the public's confidence remains high. Examiners based in the regional Reserve Banks periodically study a bank's records to determine the bank's financial condition and whether it is following appropriate laws and regulations. The Fed will require the bank to correct any problems.

Today's examinations are part of an ongoing process in which examiners perform their duties either from their own offices with the latest in automation or by going directly to the banks.

Financial Services

The Fed is referred to as the "banker's bank" because it provides essentially the same services to banks that banks provide to their customers. For example, regional Feds can loan money to banks and charge them an interest rate, just like banks loan money to their customers.



Through the Fed's discount and credit operations, Reserve Banks provide cash to banks to meet short-term needs stemming from seasonal fluctuations in deposits or unexpected withdrawals. The Fed also provides cash to banks for longer-term solutions in exceptional circumstances. When lending money to banks, the Fed charges a discount rate, much as a bank charges an interest rate for a house or car loan.

These services contribute to an effective functioning of the banking system, alleviate pressure in the reserve market and reduce unexpected movements in interest rates. Moreover, adjustments to the basic discount rate can be an important indicator of impending monetary policy shifts.

The Fed is not only the banker's bank, it's also the U.S. government's bank, maintaining accounts and providing services for the Treasury Department. Federal taxes are deposited at the Fed. The Reserve Banks also handle the sale and redemption of government securities to help the Treasury finance the national debt. These Treasury bills, notes and bonds are sold to the public and financial institutions.

Every day, Reserve Banks process billions of dollars in currency, checks and electronic payments. As a result, the Fed plays a vital role in the nation's payment system.

It's up to the Fed to make sure there's always enough money in circulation. This means issuing currency and coin to banks and ensuring that currency is in good condition. The Fed removes and destroys damaged, counterfeit or worn-out currency and coins.

One of the Fed's busiest operations is check clearing—an around-the-clock operation. Millions of checks are sorted, tabulated and credited or debited daily to financial institution accounts .

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Conclusion

The Fed is a uniquely American version of a central bank, fulfilling major responsibilities important to the nation's well-being—fighting inflation, setting monetary policy, serving as the banker's bank and supervising financial institutions. In fact, emerging democracies around the globe use the Fed as a model to develop their own monetary policies.

These countries look to the Fed's success at instilling confidence in our nation's money and its success at achieving price stability—the foundation for a stable and growing economy and better living standards for its citizens.

"To keep prices steady,

keep jobs and production both coming,

the job of the Fed,

when all's done and said,

is to keep the economy humming."

— Charles Osgood
Radio and Television Commentator
Narrator, The Fed Today *video*

Federal Reserve Districts and Branches

1A
Boston

2B
New York
- Buffalo

3C
Philadelphia

4D
Cleveland
- Cincinnati
- Pittsburgh

5E
Richmond
- Baltimore
- Charlotte

6F
Atlanta
- Birmingham
- Jacksonville
- Miami
- Nashville
- New Orleans

7G
Chicago
- Detroit

8H
St. Louis
- Little Rock
- Louisville
- Memphis

9I
Minneapolis
- Helena

10J
Kansas City
- Denver
- Oklahoma City
- Omaha

11K
Dallas
- El Paso
- Houston
- San Antonio

12L
San Francisco
- Los Angeles
- Portland
- Salt Lake City
- Seattle

KF
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